



Ministry of Education and Sports

Environmental and Social Management Framework for

Skills Development Project (SDP)

Final Version

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Acronyms

BTVET:	Business, Technical, Vocational Education and Training
CoE:	Center of Excellence
CDO:	Community Development Officer
DCDO:	District Community Development Officer
D/HTVET:	Directorate of Higher, Technical and Vocational Education and Training
ESMF:	Environmental and Social Management Framework
GoU:	Government of Uganda
HIV/AIDS:	Human Immuno Virus/ Acquired Immunity Deficiency Syndrome
HSE:	Health Safety and Environment
ICT:	Information and communications technology
IPM:	Integrated pest management
MAAIF:	Ministry of Agriculture, Animal Industry and Fisheries
MLHUD:	Ministry of Lands, Housing & Urban Development
MoES:	Ministry of Education and Sports
MoLG:	Ministry of Local Government
NEMA:	National Environment Management Authority
PWD:	People with disabilities
PPT:	Project preparation team
PPET:	Post-primary education and training
PVoC:	Pre-shipment Verification of Conformity
RPF:	Resettlement Policy Framework
RTF	Reform taskforce
SDA:	Skills Development Authority
SDP:	Skills Development Project
SSC:	Sector skills councils
ToR:	Terms of Reference
UNRA:	Uganda National Roads Authority
UTC:	Uganda Technical College
UGAPRIVI:	Uganda Association of Private Vocational Institutions
Vis:	Vocational Institutions

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EXECUTIVE SUMMARY

Government of Uganda with support of the World Bank (IDA) is preparing the Skills Development Project. The project will support some of the key reforms proposed within the Skilling Uganda strategy with a focus on the agriculture and small and medium scale manufacturing sectors. The focus will be on creating a system which delivers skills and competencies amongst the labor force which are responsive to the demands of the target sectors. The Project will achieve its objective by: (i) institutionalizing systemic reforms in skills development; and (ii) establishing four Centers of Excellence (CoE) in agriculture, construction and manufacturing.

01: PROJECT DESCRIPTION

The Project Development Objective (PDO) is to enhance capacity of institutions to deliver quality and relevant skills training programs in agriculture, construction, and manufacturing sectors, in order to improve placement outcomes. The key performance indicators related to this objective are: (i) Sector Skills Councils (SSCs) in the targeted sectors are established and functional; (ii) percentage of trainees who are employed (including self-employment) six months after they complete training; and (iii) the number of memoranda of understanding/partnership agreements signed between public/private entities and the respective CoEs for training.

a) Component 1: Institutionalizing systemic reforms in skills development

The design of this component remains largely in line with the aim of transforming the BTVET system from an educational sub-sector into a comprehensive system of skills development for employment, enhanced productivity and growth. Systemic reform activities proposed under this component are key to the success of the entire project.

Sub-Component 1.1- SDA establishment and operation. The project, through government counterpart funding, would support the development of the organizational plans, systems and operational procedures for the Skills Development Authority (SDA). It would include technical assistance to develop, test and implement: (i) a management information system for the Reform Task Force (RTF)/SDA, including support to strengthen information systems among the main provider organizations namely: Ministry of Education and Sports (MoES) and Uganda Association of Private Vocational Institutions (UGAPRIVI); (ii) a monitoring and evaluation system; and (iii) a financial management system. Component 1 includes financing for studies, staffing, technical assistance and operating expenses of the RTF and SDA. The main output would be a complete operational manual for the SDA.

Sub-Component 1.2- Establishing sector skills councils (SSCs). The project, through government counterpart funding, would support the establishment and initial operation of three sector skills councils in priority sectors, e.g. agriculture, construction and manufacturing. The SSCs would operate under the aegis of the RTF/SDA. The purpose is to help reduce skills gaps and shortages as well as improve worker and enterprise productivity. SSCs would carry out the following functions: (i) identification and analysis of skill requirements in the economic sector; (ii) development of industry skills strategies and training plans to achieve priority goals; (iii) establishing occupational and competency standards and qualifications as part of the Uganda Vocational Qualifications Framework (UVQF); (iv) evaluating performance in skills development; (v) regulation of private sector training providers; (vi) promoting workplace based training in the sector and (vii) improve the image of the BTVET sub-sector through social marketing campaigns. The SSCs may also play a role in raising and allocating funds for skills development through the Training Fund. The SSCs would be comprised of a strong employer majority along with representatives of workers and government ministries. The project would finance studies on training needs, fora for exchange of experience and sharing of best practices and development of standards.

b) Component 2: Developing Centers of Excellence within the existing Institutions (CoE) in specific trades and occupations within the focus sectors (agriculture, manufacturing and construction).

The colleges to become Centers of Excellence were selected based on the following criteria: (i) Sectoral focus (colleges focused on agriculture, manufacturing, and construction); (ii) Regional representation- there are four regions in Uganda (North, South, East and West); and (iii) access to other financing by the Colleges. There are currently five colleges focused on manufacturing/construction- the Uganda Technical Colleges in Kichwamba, Kyema, Lira, Bushenyi, and Elgon. UTC Kichwamba in the West is currently receiving financing through the Islamic Development Bank and the IDA financed Albertine Region Sustainable Development Project. UTC Kyema is a relatively new institute and is located within the same region. Given the Western region has an institute that will be targeted to become a CoE in construction/manufacturing, the focus of this project will be on: **UTC Lira (North); UTC Bushenyi (Southwest); and UTC Elgon (East)**. In the central region, the focus will be on **Bukalasa Agriculture Training College** (in Luwero District). This is the only Agriculture Training College in the country.

(Note the fisheries institute in Entebbe is not being targeted under this project to become a CoE given the limited funds available, and the priority given to crop production and animal industries, both of which are the focus in Bukalasa).

As per the mission of July 2014, the specific sub-components of this component are as follows:

Sub-component 2.1: Develop and adapt curriculum and assessment system to international standards. Under this sub-component the project will finance: (i) twinning arrangements with qualified international training providers (technical assistance), through which the relevant competency-based curriculum will be sourced; (ii) adaptation of competency-based curriculum in specific trades/occupations to the requirements of the country as defined by the Sector Skills Councils; and (iii) the development of appropriate assessment systems which are administered by a third qualifying party and not the CoE itself.

Sub-component 2.2: Train instructors and develop training materials. This sub-component would be focused on the provision of technical assistance for: (i) the development and validation of materials to train teachers in the cluster of a given CoE; and (ii) provision of training for teachers belonging to the CoE and Vocational institutes' network. The partner international institute, through the twinning arrangement, is expected to train trainers and provide mentoring support during the first few years of the project. The project will also finance enhancement of teachers qualifications and training in institutions and enterprises both within and outside the country.

Sub-component 2.3: Expand and equip colleges and network facilities, including civil works. The project will support the upgrading of four CoEs, one in agriculture, and three in manufacturing/construction. In addition, the project would support three to five vocational institutes (VIs), through a phased approach, based on some eligibility and selection criteria to be linked to each CoE. This sub-component will support: (i) acquisition of training equipment and supplies in line with adapted curricula; (ii) civil works for the construction of new and/or refurbishing of existing workshops, classrooms and other facilities in line with the requirements to deliver the curricula.

Sub-component 2.4: Support to improving management and monitoring mechanisms within the CoEs. This sub-component will support the CoEs to improve its monitoring systems in order to effectively track trainees once they have completed training. By tracking the students, the CoE would be in the position to send a signal to the market that its students are indeed being employed in their fields of training and that the return on the training investment is worthwhile. This sub-component will also support professional development of the management and staff of the CoE and network institutes.

The project is summarized in box below.

Box ES1: Project description

Component 1:	Institutionalizing systemic reforms in skills development.
<i>Sub-component 1.1</i>	Establishment of a Skills Development Authority (SDA).
<i>Sub-component 1.2</i>	Establishing sector skills councils (SSCs) in priority sectors, e.g. agriculture, construction and manufacturing.
Component 2:	Developing Centers of Excellence (CoE) within existing Institutions in specific trades and occupations within the focus sectors (agriculture, manufacturing and construction).
<i>Sub-component 2.1</i>	Develop and adapt curriculum and assessment system to international standards.
<i>Sub-component 2.2</i>	Train instructors and develop training materials.
<i>Sub-component 2.3</i>	Expand and equip colleges and network facilities, including civil works
<i>Sub-component 2.4</i>	Support to improving management and monitoring mechanisms within the CoEs

c) Component 3: Project Management, Monitoring and Evaluation

This component would finance: (i) management of the project including establishment of a Project Coordination Unit within the MoES to manage the project, as well as implementation units within the respective CoEs; (ii) a social marketing campaign to improve the image of BTVET sub-sector with aim of increasing demand for technical and vocational training as well as increasing equity in access by attracting more females and students from other marginalized groups to technical and vocational education and training; and (iii) monitoring and evaluation under the project including baseline studies, mid- and end-term tracer studies, employer satisfaction surveys, mid-term management review, and annual performance audits.

02: POTENTIAL SOCIO-ENVIRONMENTAL IMPACTS OF SDP

Prediction and forestalling impacts of the proposed project should start with design and procurement stages as outlined below.

i) Design stage:

Reason: Some socio-environmental impacts can be prevented by nature of facility design. For provision of ramp access for disabled people on buildings when constructing new or refurbishing existing workshops, classrooms and other facilities (Refer to Component 2, Sub-component 2.3).

ii) Procurement stage:

Reason: It should be a contractual obligation for the contractor to fulfill minimum social-environmental requirements such as having in place an HIV Policy, OHS Policy, Gender Policy, etc and implement social-environmental controls prescribed by this ESMF. These are only possible when specific requirements are incorporated in bidding documents at tendering stage or in contracts of successful bidders. Among other requirements, the Contractor should develop Contractor's ESMP to guide implementation of environmental and social aspects, and this includes making budgetary provision where necessary.

iii) Construction/ implementation stage (by contractor):

Contractors have obligation to implement environmental mitigation actions specified in the ESMF. It is essential that this requirement is made mandatory in contractors' contracts and the following controls instituted:

- a) It should be a contractual requirement that Contractors must have a Socio-Environmental Officer to supervise compliance with socio-environmental requirements.
- b) The Supervising Consultant should not approve contractor's payment certificates when there are outstanding socio-environmental obligations or impacts not fully remedied.

Specific project impacts are discussed in tables below.

A) General socio-environmental impacts

i) Positive impacts

Largely, *Components 1 and 2* of the proposed project will support skills development and no adverse socio-environmental impacts are predicted to arise. Positive impacts are:

- a) Improved capacity and skills for instructors after they are trained.
- b) Improved quality of graduates from Technical Colleges. With new and modern equipment, colleges will be able to train students on machines they would likely find in their workplaces after graduation.
- c) Creation of a Skills Development Authority (SDA) responsible for regulating and monitoring quality of training in technical colleges.
- d) Establishing sector skills councils (SSCs) that will:
 - i) identify and analyse skill requirements in the economic sector ;
 - ii) develop industry skills strategies and training plans to achieve priority goals;
 - iii) establish occupational and competency standards and qualifications as part of the Uganda Vocational Qualifications Framework (UVQF);
 - iv) evaluate performance in skills development;
 - v) regulate private sector training providers; and
 - vi) promote workplace-based training in the sector.
- e) Centers of Excellence (CoE) created within the existing institutions in specific trades (agriculture, manufacturing and construction) will enable replication of benefits to other institutions.
- f) Development of curriculum and assessment system to international standards would make Uganda's technical college graduates of high calibre and competitive nationally, regionally and internationally.
- g) Support to improving management and monitoring mechanisms in CoE will ensure continual improvement and sustained high quality in training institutions.

ii) Negative impacts

- a) Supported institutions should avoid pilferage of workshop equipment supplied by the project (and sale to ever increasing private vocational training schools) by undertaking proper inventory control and providing adequate security measures (burglar proofing windows/ doors and manned security) at workshops. A cost effective security surveillance system may be considered by the project.
- b) Equipment supplied should match requirements of updated curricula to avoid financial loss and redundant investment.
- c) Equipment support should ensure there is adequate room in workshop to accommodate units supplied. If there is need to modify buildings to increase space in machine workshops, this should be considered early in the planning stage. This will avoid equipment being kept in the open exposed to destructive elements of weather (rain, sun) and dust.
- d) Private vocational training institutions are increasing in number and technical skills. Instructors trained at the selected technical colleges may be lured away by higher pay at private institutions, defeating the

purpose and intent of the project. No control can be proposed for this risk but general improvement in amenities, working conditions and security of employment/ tenure would ensure longevity of service from college tutors/ staff.

B) Socio-environmental impacts of Subcomponent 2.3 of Component 2.

i) Negative impacts

Potential negative impacts may arise from Sub-component 2.3 of Component 2 below which will entail construction/civil works.

“Sub-component 2.3: Expand and equip colleges and network facilities, including civil works. The project will support the upgrading of four CoEs, one in agriculture, and three in manufacturing/construction. In addition, the project would support three to five vocational institutes (VIs), through a phased approach, based on some eligibility and selection criteria to be linked to each CoE. This sub-component will support: (i) acquisition of training equipment and supplies in line with adapted curricula; (ii) civil works for the construction of new and/or refurbishing of existing workshops, classrooms and other facilities in line with the requirements to deliver the curricula.”

Potential negative impacts are outlined below and discussed in Table ES2:

- a) **Land take** where new buildings are constructed on land currently used by local people or college staff for subsistence farming or small-scale businesses. Displacement of such activities would cause negative socio-economic impact such as reduction in income or household food supplies.
- b) **Dust emissions** from construction activities and haulage of materials. This would affect students, staining buildings increasing their maintenance costs (need for repainting).
- c) **Temporary severance of access** to certain areas on campuses during construction
- d) **Public safety risks** from construction traffic.
- e) **Construction noise and vibration** affecting teaching and learning during the construction period.
- f) **Impact on resources of cultural heritage**
- g) **Damage to public and private property** due to civil works.
- h) **Poor labour management and occupational health and safety (OHS) risks** such as not providing safety gear (PPE), wash and drinking water, food, toilets at construction sites.
- i) **Safety risks for students near construction sites.** Such risks could arise from falling debris, uncovered trenches or exposed electrical wires at or near construction sites.
- j) **Improper construction waste management** such as disposal in wetlands or other unauthorized locations, contaminating local environmental resources (land, watercourses).
- k) **Sexual fraternization among construction workers and college students** leading to risk of unplanned pregnancies, HIV/AIDS or other sexually transmitted diseases (STDs).
- l) **Improper management (storage and disposal of expired chemicals) of agricultural chemicals** leading to occupational risk and environmental (air, water, soil) contamination.
- m) **Improper disposal of old training equipment discarded by beneficiary colleges.** This would be an aesthetic impact yet scrap equipment has monetary value to iron and steel smelters.

ii) Positive impacts

- a) Employment to construction workers
- b) Income for material suppliers
- c) Improved infrastructure and new equipment in technical colleges will provide better teaching and learning experience for tutors and students respectively.

Possible negative impacts of project sub-Component 2.3 (having safeguards implications) are discussed in table below together with respective mitigation recommendations.

Table ES1: Social-environmental impacts of Components 2, Sub-component 2.3

	Project component	Impact
1	<p>Sub-component 2.3:</p> <p>Expand and equip colleges and network facilities, including civil works. The project will support the upgrading of four CoEs, one in agriculture, and three in manufacturing/construction. In addition, the project would support three to five vocational institutes (VIs), through a phased approach, based on some eligibility and selection criteria to be linked to each CoE. This sub-component will support: (i) acquisition of training equipment and supplies in line with adapted curricula; (ii) civil works for the construction of new and/or refurbishing of existing workshops, classrooms and other facilities in line with the requirements to deliver the curricula.”</p>	<p>i) Land take and displacing prevailing uses at locations where new buildings would. Land use change would occur if new buildings are constructed on land currently used by either local people or college staff for subsistence farming or small-scale businesses. Displacement of such activities would cause negative socio-economic impact such as reduction in income or household food supplies.</p> <p><u>Mitigation:</u></p> <ul style="list-style-type: none"> ▪ Provide adequate notice for intended land use change to ensure that crops are harvested before project development or structures moved. Where this is impractical, the project should provide due compensation or resettlement to affected entities, as guided by the RPF. ▪ Ensure all grievances are conclusively addressed as per RFP. ▪ Compensate for any economic displacement occasioned by project development. <p>ii) Dust emissions during civil works</p> <p>Dust will stain roadside structures and taint merchandise or produce in shops and markets. Staining may require washing or repainting. Tainted goods for sale (especially sugar, flour, etc) would lose monetary value, hence negative socio-economic impact to affected road-side vendors. This impact will be short-term manifesting only during construction phase.</p> <p>Exposure to dust from construction materials, demolition and vehicle movement may pose short-term respiratory infirmities (e.g. coughs) to workers or college students and staff exposed.</p> <p><u>Mitigation:</u></p> <ul style="list-style-type: none"> ▪ Contractor should water construction areas to control dust. ▪ Travel speeds past roadside markets should be safely low to avoid dust plumes. <p>iii) Temporary severance of access to certain areas on campuses during construction</p> <p>Severance of access to various areas on campuses may arise during construction when which is a negative impact that would affect students.</p> <p><u>Mitigation:</u></p> <p>Contractors should devise temporary provisions to avoid severance of access to various areas on the campus.</p> <p>iv) Public and occupational safety risks</p> <p>Civil works and construction traffic may pose several risks e.g. road accidents risk at road crossings, on college campuses and through trading centers for especially</p>

	Project component	Impact
		<p>children, women and elderly people.</p> <p><u>Mitigation:</u></p> <ul style="list-style-type: none"> ▪ The Contractor must provide appropriate and adequate PPE to all workers. ▪ Safety drills should be carried out regularly to ensure workers are aware of occupational risks and their control measures. ▪ Fence of the construction site to limit un-authorised access by non-construction personnel. ▪ Safety signs, banksmen, speed control measures and adequate sensitisation of construction workers and people in project area should be undertaken to minimise accident risk. ▪ Contractors should work together with local leaders to agree on public safety measures which should be disseminated to local people. <p>v) Construction noise and vibrations</p> <p>Construction noise or vibrations may disrupt teaching and learning at colleges. This impact can be significant where construction activities last for several months or spanning examination periods.</p> <p><u>Impact management:</u> Schools management should require contractors to schedule noisy activities outside class time or examination periods.</p> <p>vi) Impact on resources of cultural heritage</p> <p>It is unlikely that construction at college campuses would encounter <i>chance finds</i> of cultural/ heritage value but if this happened, mitigation measures below are proposed:</p> <p><u>Mitigation:</u></p> <ul style="list-style-type: none"> ▪ In developing urban plans, municipalities should preserve resources (e.g. buildings, monuments) of cultural heritage. ▪ During constructing infrastructure, physical cultural resources should be protected and conserved. Any chance finds encountered should be handed to the Department of Museums and Monuments for preservation. <p>vii) Management of Construction waste/ debris</p> <p>Common waste streams are wood/ timber waste with sharp nails, cement bags, demolition debris, etc. Improper management of construction waste would pose public health impacts and environmental contamination.</p> <p><u>Mitigation:</u></p> <ul style="list-style-type: none"> ▪ It should be a contractual obligation for the contractor to properly manage construction waste at any UTC campus. ▪ Waste must not be dumped in swamps or hazardous waste reused by local people. Disposal of waste should be in a designated location as advised by a local environmental officer.

	Project component	Impact
		<p>viii) Damage to public and private property due to civil works.</p> <p>When no due care is taken by contractors, civil works damage public infrastructure on campuses (water mains, poles supporting 33 kV power lines) and private property (access roads, gardens, fences, etc) adjoining campuses on which construction is undertaken.</p> <p><u>Mitigation:</u></p> <ul style="list-style-type: none"> ▪ Utilities layout/location assessment relative to proposed structures should be undertaken prior to carrying out civil works in order to establish their location and any relocation need. ▪ Any damages should be duly compensated immediately by contractors utilising their public liability insurance.
		<p>ix) Improper management (storage and disposal) of agricultural chemicals leading to occupational risk and environmental (air, water, soil) contamination. This impact will apply to agricultural herbicides and pesticides used in training at Bukalasa Agricultural Training College.</p> <p><u>Impact management:</u></p> <p>The college should have proper storage of hazardous agro-chemicals and a structure protocol for acquisition/procurement of pesticides, safe onsite storage, use and disposal of any expired agro-chemicals including empty containers.</p> <p>An Agro-Chemicals Management Strategy (Annex 13) should be followed in managing agro-chemicals at the College.</p> <p>x) Improper disposal of old training equipment discarded by colleges.</p> <p>The project will provide new equipment to use for training and instruction of students and ensure they are familiar with modern units the kind they would meet in workplaces upon employment. Once new equipment is provided to beneficiary colleges, old units will be discarded. Improper disposal or abandonment at campuses would be an aesthetic impact yet scrap equipment has monetary value to iron and steel smelters.</p> <p><u>Impact management:</u> Colleges should explore opportunities to sell off discarded equipment to iron and scrap recycling companies.</p>
Positive impacts		
		<ul style="list-style-type: none"> ▪ Employment to construction workers: Construction activities will provide employment at each site but this is a temporary and reversible impact benefit ending with completion of construction works. ▪ Income for material suppliers: Local suppliers will earn money from provision of construction materials such as sand, cement, timber, steel bars, etc required during construction. ▪ Improved teaching and learning experience for tutors and students due to new infrastructure and equipment provided by the project.

03: SDP IMPLEMENTATION ARRANGEMENTS

The project will be implemented by Uganda Government's Ministry of Education and Sports (MoES).

Potential socio-environmental impacts of the SDP project have been predicted and mitigation actions proposed. Involvement of local governments is important especially for monitoring project implementation. All entities involved in this project have technical capacity however, capacity building in socio- environmental aspects was required by Construction Management Unit of MoES .

1 INTRODUCTION

1.1 The proposed SDP Project

Government of Uganda with support of the World Bank (IDA) is preparing the Skills Development Project. The project will support some of the key reforms proposed within the Skilling Uganda strategy with a focus on the agriculture and small and medium scale manufacturing sectors. The focus will be on creating a system which delivers skills and competencies amongst the labor force which are responsive to the demands of the target sectors. The Project will achieve its objective by: (i) institutionalizing systemic reforms in skills development; and (ii) establishing four Centers of Excellence (CoE) in agriculture, construction and manufacturing.

1.2 Overview of Business, Technical, Vocational Education and Training in Uganda

The Government recognizes that the productivity of micro and small-medium enterprises (SMEs) in Uganda is greatly hampered by lack of basic technical and vocational skills. Skilled electricians, artisans, carpenters, machine repairers etc. are all in short supply and not available in some cases. For example, the private sector has to import skilled technicians from neighbouring countries, especially Kenya, despite Uganda's high level of under- and unemployment. The current vocational education and training system is considered no longer adequate for the demand placed on it by a fast growing economy. Uganda Government has decided to implement key reforms with the assistance of the donor community to ensure vocational and technical skills development to support private sector growth. As part of the reforms, the Government shall enact new national vocational education and training legislation and promote training of entrepreneurs.

In its strategy for Private Sector Development (PSD), Uganda Government recognizes that the existing vocational and technical training facilities have considerable technical and financial constraints that have prevented them from developing technical skills in the country. The situation is not likely to improve in the short to medium term, given the competing demands on the Government budget. It is said that the key to resolving these constraints on a sustainable basis in the medium to long term is to provide demand-led skills training on a cost-recovery or profit-making basis. This implies that the training has to be tailored to the needs of the private sector, and therefore either have a strong influence of the private sector or be provided by the private sector (perhaps with direct assistance of development partners).

According to the Government strategy for PSD, the short-term policy will give priority to the rehabilitation of existing technical/vocational facilities and training of trainers with support from development partners. In the medium and longer term, a framework shall be developed in collaboration with stakeholders that would ensure wider access to training, advice and extension services to SMEs. These could include countrywide training of trainers program in small business management, the establishment of at least one rehabilitated and strengthened private or public vocational institute in each district, the creation of mobile training facilities in nine regions to deliver training, targeting mainly remote areas, and countrywide community based skills training for entrepreneurs.

1.3 Constraints of Technical Education and Training in Uganda

Key constraints in technical education and training in Uganda are:

- i) The quality and coverage of vocational and technical education and training is low, comparatively costly, and ill-adapted to industry needs.
- ii) **Inadequate funding from Government.**

The post-primary education and training (PPET) sub-sector of the education system is not a high priority area. Over the last few years, the

average share of recurrent secondary budget out of total education recurrent has been around 15 percent, and the share of technical and vocational education around 3 percent, compared to 65 percent for primary education. The government has now promised to provide at least 65 percent of the education sector budget for primary education and, because of education reforms, increase the budget for tertiary education. Given these commitments, the PPET sector can best hope that the current levels will be maintained for the medium term (World Bank 2002)¹.

iii) **Management constraints**

Training is under the Department of Business, Technical and Vocational Education and Training (DBTVET). DBTVET is in charge of institutions ranging from secondary technical and farm schools to tertiary institutions that are governed by the Higher Education Act. At ministry level, there are still staffing and managerial skills gaps which constrain management capacity (*ibid*).

iv) **High cost hence affordability and sustainability constraints**

Technical education is at least twice as expensive as a regular O-level school yet most of the target population i.e. Primary 7 (P7) leavers and Senior 1–4 (S1-S4) dropouts are from the poorest section of the population unable to fund their technical training.

v) **Suitability of skills to industry needs**

Consultations revealed widespread concern that technical and vocational training does not provide adequate for the kind of skills or specializations required in industry. For instance *Roofings LTD* hires technicians trained in metallurgy from Kenya because none are trained in Uganda. Mukwano Group would desire to hire technicians specialized in Soap manufacture and Edible oil processing, Plastics manufacture but these specializations are not currently taught in national technical colleges.

Opportunely, many industries now have in-house training programs and prefer to do their own training in specialty areas they need but also recommended that technicians graduate with socio-environmental and management skills.

vi) **Training using antiquated equipment**

Students in Technical Colleges are trained using antiquated equipment. The challenge of this is that students meet unfamiliar equipment for which they require several months of training to get acquainted to modern and automatic ones met in the workplace. To many employers, this is a cost they would not incur if students were trained with modern equipment.

Examples of antiquated equipment and old workshops/ laboratories found at UTCs during preparation of this ESMF are shown in photographs below.

Additional photographs showing prevailing conditions at UTCs visited are provide in Annex 14.

¹ World Bank 2002: *Uganda Post-Primary Education Sector Report. Africa Region Human Development Working Paper Series.*



Photo 1: An old workshop (a) and antiquated lathe and machining equipment (b, c) used for training at Lira Technical College.

2 PROJECT DESCRIPTION

The Project Development Objective (PDO) is to enhance capacity of institutions to deliver quality and relevant skills training programs in agriculture, construction, and manufacturing sectors, in order to improve placement outcomes. The key performance indicators related to this objective are: (i) SSCs in the targeted sectors are established and functional; (ii) percentage of trainees who are employed (including self-employment) six months after they complete training; and (iii) the number of memoranda of understanding/partnership agreements signed between public/private entities and the respective CoEs for training.

a) Component 1: Institutionalizing systemic reforms in skills development

The design of this component remains largely in line with the aim of transforming the BTVET system from an educational sub-sector into a comprehensive system of skills development for employment, enhanced productivity and growth. Systemic reform activities proposed under this component are key to the success of the entire project.

i) **Sub-Component 1.1- SDA establishment and operation.**

The project, through government counterpart funding, would support the development of the organizational plans, systems and operational procedures for the Skills Development Authority (SDA). It would include technical assistance to develop, test and implement: (i) a management information system for the Reform Task Force (RTF)/SDA, including support to strengthen information systems among the main provider organizations (MoES and UGAPRIVI); (ii) a monitoring and evaluation system; and (iii) a financial management system. Component 1 includes financing for studies, staffing, technical assistance and operating expenses of the RTF and SDA. The main output would be a complete operational manual for the SDA. The mission is of the view that the SDA may require intensive technical assistance in order to perform its role effectively. If the GoJ wishes the project to finance the technical assistance, including international, the Bank will be happy to include it under the project.

ii) **Sub-Component 1.2- Establishing sector skills councils (SSCs).**

The project, through government counterpart funding, would support the establishment and initial operation of three sector skills councils in priority sectors of agriculture, construction and manufacturing. The SSCs would operate under the aegis of the RTF/SDA. The purpose is to help reduce skills gaps and shortages as well as improve worker and enterprise productivity. SSCs would carry out the following functions: (i) identification and analysis of skill requirements in the economic sector; (ii) development of industry skills strategies and training plans to achieve priority goals; (iii) establishing occupational and competency standards and qualifications as part of the Uganda Vocational Qualifications Framework (UVQF); (iv) evaluating performance in skills development; (v) regulation of private sector training providers; (vi) promoting workplace based training in the sector and (vii) improve the image of the BTVET sub-sector through social marketing campaigns. The SSCs may also play a role in raising and allocating funds for skills development through the Training Fund. The SSCs would be comprised of a strong employer majority along with representatives of workers and government ministries. The project would finance studies on training needs, fora for exchange of experience and sharing of best practices and development of standards.

b) Component 2: Developing Centers of Excellence (CoE) within the existing Institutions in specific trades and occupations within the focus sectors (agriculture, manufacturing and construction).

The colleges to become Centers of Excellence were selected based on the following criteria: (i) Sectoral focus (colleges focused on agriculture, manufacturing, and construction); (ii) Regional representation- there are four regions in Uganda (North, South, East and West); and (iii) access to other financing by the Colleges. There are currently five colleges focused on manufacturing/construction- the Uganda Technical Colleges in Kichwamba, Kyema, Lira, Bushenyi, and Elgon. UTC Kichwamba in the West is currently receiving financing through the Islamic Development Bank and the IDA financed Albertine Region Sustainable Development Project. UTC Kyema is a relatively new institute and is located within the same region. Given the Western region has an institute that will be targeted to become a CoE in construction/manufacturing, the focus of this project will be on: **UTC Lira (North); UTC Bushenyi (Southwest); and UTC Elgon (East)**. In the central region, the focus will be on **Bukalasa** (in Luwero District) the only **Agriculture Training College** in the country.

(Note the fisheries institute in Entebbe is not being targeted under this project to become a CoE given the limited funds available, and the priority given to crop production and animal industries, both of which are the focus in Bukalasa).

The specific sub-components of component-2 are as follows:

i) ***Sub-component 2.1: Develop and adapt curriculum and assessment system to international standards.***

Under this sub-component the project will finance: (i) twinning arrangements with qualified international training providers (technical assistance), through which the relevant competency-based curriculum will be sourced; (ii) adaptation of competency-based curriculum in specific trades/occupations to the requirements of the country as defined by the Sector Skills Councils; and (iii) the development of appropriate assessment systems which are administered by a third qualifying party and not the CoE itself.

ii) ***Sub-component 2.2: Train instructors and develop training materials***

This sub-component would be focused on the provision of technical assistance for: (i) the development and validation of materials to train teachers in the cluster of a given CoE; and (ii) provision of training for teachers belonging to the CoE and Vocational institutes' network. The partner international institute, through the twinning arrangement, is expected to train trainers and provide mentoring support during the first few years of the project. The project will also finance enhancement of teachers qualifications and training in institutions and enterprises both within and outside the country.

iii) ***Sub-component 2.3: Expand and equip colleges and network facilities, including civil works.***

The project will support the upgrading of four CoEs, one in agriculture, and three in manufacturing/construction. In addition, the project would support three to five vocational institutes (VIs), through a phased approach, based on some eligibility and selection criteria to be linked to each CoE. This sub-component will support: (i) acquisition of training equipment and supplies in line with adapted curricula; (ii) civil works for the construction of new and/or refurbishing of existing workshops, classrooms and other facilities in line with the requirements to deliver the curricula.

iv) **Sub-component 2.4: Support to improving management and monitoring mechanisms within the CoEs.**

This sub-component will support the CoEs to improve its monitoring systems in order to effectively track trainees once they have completed training. By tracking the students, the CoE would be in the position to send a signal to the market that its students are indeed being employed in their fields of training and that the return on the training investment is worthwhile. This sub-component will also support professional development of the management and staff of the CoE and network institutes.

c) Component-3: Project Management, Monitoring and Evaluation

This component would finance: (i) management of the project including establishment of a Project Coordination Unit within the MoES to manage the project, as well as implementation units within the respective CoEs; (ii) a social marketing campaign to improve the image of BTVET sub-sector with aim of increasing demand for technical and vocational training as well as increasing equity in access by attracting more females and students from other marginalized groups to technical and vocational education and training; and (iii) monitoring and evaluation under the project including baseline studies, mid- and end-term tracer studies, employer satisfaction surveys, mid-term management review, and annual performance audits.

The project is summarized in box below.

Box ES1: Project description

Component 1:	Institutionalizing systemic reforms in skills development.
<i>Sub-component 1.1</i>	Establishment of a Skills Development Authority (SDA).
<i>Sub-component 1.2</i>	Establishing sector skills councils (SSCs) in priority sectors, e.g. agriculture, construction and manufacturing.
Component 2:	Developing Centers of Excellence (CoE) within existing Institutions in specific trades and occupations within the focus sectors (agriculture, manufacturing and construction).
<i>Sub-component 2.1</i>	Develop and adapt curriculum and assessment system to international standards.
<i>Sub-component 2.2</i>	Train instructors and develop training materials.
<i>Sub-component 2.3</i>	Expand and equip colleges and network facilities, including civil works
<i>Sub-component 2.4</i>	Support to improving management and monitoring mechanisms within the CoEs
Component 3:	Project Management, Monitoring and Evaluation

3 BASELINE CONDITIONS IN PROJECT DISTRICTS

This section covers general baseline environmental and socio-economic conditions in the four districts where the Skills Development Project will be implemented. For specificity, only baseline conditions likely to be affected by the project are discussed in this section.

3.1 LOCATION OF PROJECT DISTRICTS

The districts (Luwero, Mbale, Lira and Bushenyi) where SDP will be implemented are shown in Figure 1 below.

a) Luwero district

Luweero District is bordered by Nakasongola District to the north, Kayunga District to the east, Mukono District to the southeast, Wakiso District to the south and Nakaseke District to the west. The district headquarters at Luweero are located approximately 75 kilometres (47 mi), by road, north of Kampala, Uganda's capital and largest city. The coordinates of the district are: 00 50N, 32 30E (Latitude:0.8333; Longitude:32.500).

b) Mbale District

Mbale District is bordered by Sironko District to the north, Bududa District to the northeast, Manafwa District to the southeast, Tororo District to the south, Butaleja District to the southwest and Budaka District to the west. Pallisa District and Kumi District lie to the northwest of Mbale District. Mbale, the largest town in the district and the location of the district headquarters, is located approximately 245 kilometres (152 mi), by road, northeast of Kampala, the capital of Uganda, and the largest city in the country. The coordinates of the district are:00 57N, 34 20E. It has an area of 518.8 square kilometres (200.3 sq mi). The districts of Bududa, Manafwa and Sironko were part of Mbale District before they were split off as independent districts of their own

c) Lira District

Lira District is bordered by Pader District to the north, Otuke District to the northeast, Alebtong District to the east, Dokolo District to the southeast, Apac District to the southwest and Kole District to the west. The main municipal, administrative and commercial center in the district, Lira, is located 110 kilometres (68 mi), by road, southeast of Gulu, the largest city in Northern Uganda. The coordinates of the district are: 02 20N, 33 06E (Latitude:02.3333; Longitude:33.1000).

d) Bushenyi District

Bushenyi District is bordered by Rubirizi District to the northwest, Buhweju District to the northeast, Sheema District to the east, Mitooma District to the south and Rukungiri District to the west. The largest town in the district, Ishaka, is located 75 kilometres (47 mi), by road, northwest of Mbarara, the largest city in the western sub-region. The coordinates of the district are:00 32S, 30 11E.

Figure 1 below shows location of project district in Uganda. The figure also provides insight into population density of the districts, showing Hoima as the most populous and Buliisa the least populated.

Other socio-environmental baseline conditions are provided in Sections 3.2-3.4.

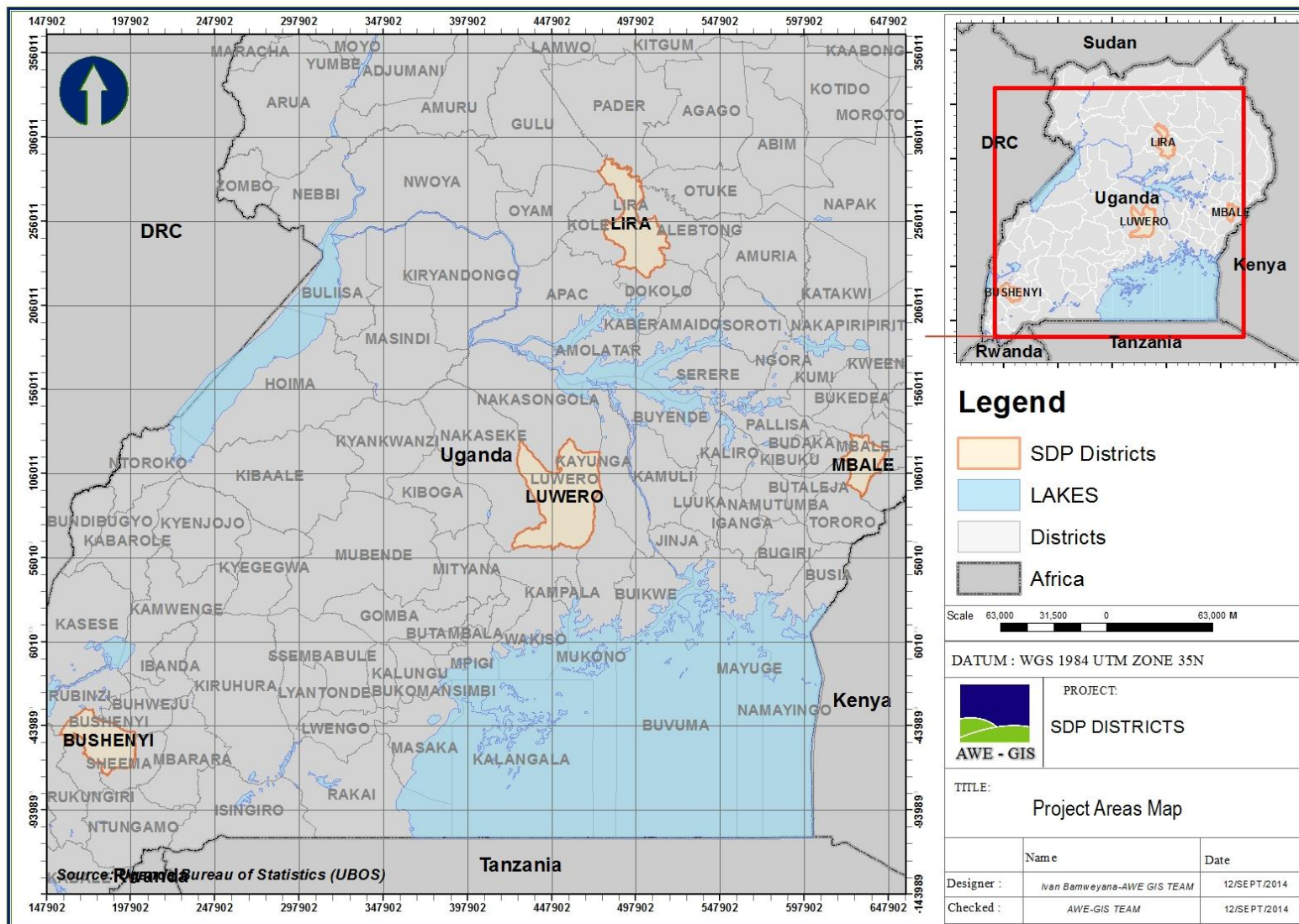


Figure 1: Districts in Uganda where the Skills Development Project (SDP) will be implemented

3.2 LUWERO DISTRICT

Luwero District is home to Bukalasa Agricultural College. The College located in Wobulenzi Sub-county is the only remaining public college in Uganda training sub-county and village agricultural extension workers, the others – Arapai and Busitema – having been upgraded to satellite colleges of Busitema University. Since its inception in 1922, Bukalasa College has been a pillar in agricultural research, training and overall development of the sector. The *BPA Cotton* variety was bred at the college.

District baseline information is provided in sections below.

3.2.1 Topography and Geology

Hilly uplands dominate the south regions of the district ancient granitic rock out-rocks rise up in the north and wide interlocking valleys break up the low hills in the central region and are seasonally flooded, bringing added diversity to the region.

With few exceptions, most of the geological formation in the District consists of the basement complex systems as the oldest, overlain in places by a succession of sedimentary strata which will have under gone a variable degree of metamorphosis. These major geological formations are characterized by the presence of young intrusive rocks, mostly acidic and less commonly basic. The youngest formation of Pleistocene is represented by the sands, quartz and clays of alluvial or lacustrine origin.

Relation to the project: Geology and topography will only be relevant to Component 2 (which entails earthworks and building construction) in so far as acquisition of gravel or aggregate depends on local geology. In addition, location, intensity and spatial extent of earthworks would depend on topography of a given road section.

3.2.2 Climate

Climate in Luwero District can be described as modified equatorial climate. Mean diurnal maximum temperatures range between 180 and 350 while the corresponding minimum diurnal range is 80 and 250. The rainfall is well distributed throughout the year, with the average annual rainfall being 1,300 mm. The peak rain period is March – May and October – November. The reliability of rainfall generally declines northwards. Dry seasons occur from December – February and June – July.

Relation to the project: Of all project components, climatic conditions will be most relevant to the civil works at CoEs (Component 2) because associated impacts: dust, noise and construction schedules can all be influenced by meteorological conditions. Generally noise is more noticed during low temperature seasons and under high humidity conditions.

3.2.3 Hydrology

Wetlands and rivers cover approximately 7% of the District. Major rivers in the district include Kafu, Sezibwa, Lugogo, Lwajali, Mayanja, and Danze. Ground water resources supply water from boreholes, protected and unprotected springs, swallow wells.

Bukalasa Agricultural College provides agricultural education in a broad range of fields. The college offers a two-year Diploma and Certificate course in: Crop production and management; Animal production and management. The curriculum is under review and the intention to include the more traditional courses in the new curriculum, including: Dairy science and technology; Poultry production and management; Horticulture; Floriculture; and Leather science and technology.

Courses taught:

- *Diploma in crop Production and Management*
- *Diploma in Animal Production and Management*
- *Diploma in Agri-business Management*
- *Diploma in Horticulture production and Management*
- *Diploma in Nutrition and Dietetics*
- *Certificate in crop Production and Management*
- *Certificate in Animal Production and Management*
- *Certificate Horticulture production and Management*

Relation to the project: Hydrology will be relevant to the civil works at CoEs (Component 2) because associated impacts: dust, noise and construction schedules can all be influenced by meteorological conditions. Dust impacts would be more significant during dry seasons. Generally noise is more noticed during low temperature seasons and under high humidity conditions. Easily accessible watercourses along roads may be used by contractors as sources of water for civil works and building construction works.

3.2.4 Ecological Resources

The major ecosystem in Luwero District includes:

- Forest – Savannah woodland and plantations, swamp forests
- Wetlands and rivers – Covers approximately 7% of the District area.
-

Wetlands species are highly specialized and if their inhabitants are disturbed the impact is great, leading to decline and even extinction of some species.

- Grassland
- Bush land: Dominates the Northern part of the district.
- Modified biodiversity ecosystems. These are rich in wildlife species. These include agro- systems, forest plantations, urban and systems.

The high ecosystem diversity in the District implies high species diversity. These include birds, invertebrates, primates, plant species, butterflies, and reptiles, fish.

Relation to the project: Construction and civil works at the college campus are not expected to impact ecological resources however the contractor may use swamps along roads as water and sand sources for construction works. These watercourses may also be contaminated by construction activities for example when construction waste is illegally dumped in swamps adjoining roads.

3.2.5 Socio-economic Baseline

3.2.5.1 Population and ethnicity

The 1991 national census estimated the population of the district at about 255,400. The national census conducted in 2002, estimated the district population at approximately 341,300 people. Results of 2014 national census are not yet out but in 2012 the district population was estimated at about 440,200 people².

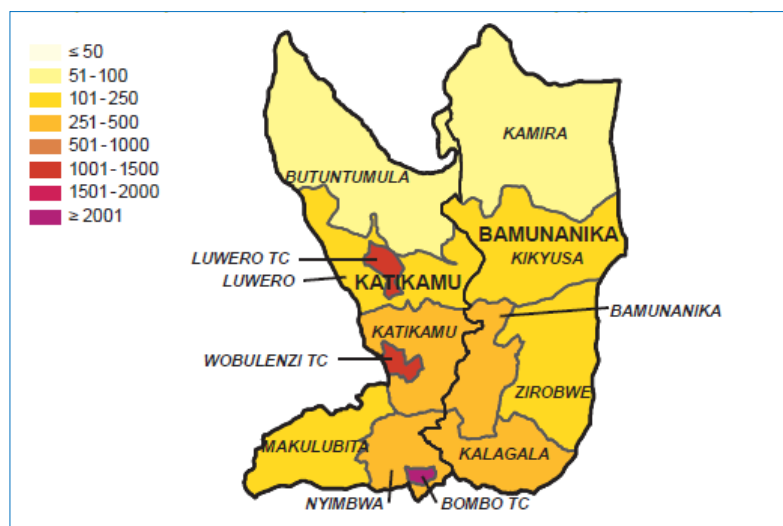


Figure 2: Population density by sub-county (person/km²)³

² Estimated Population of Luwero District In 1991, 2002 & 2012". Cityppulation.de. Retrieved 13 Sep 2014

³ Source: Directorate of Water Resources Management (DWRM) 2010: Uganda Water Supply Atlas.

The districts have always been a multi-ethnic area with many people of different origins and ethnic backgrounds. Among them include Baganda, the original inhabitants of this district. Other ethnic groups include Banyarwanda, Banyankole from Western Uganda, Luo speakers and Nubians of Sudanese origin.

Relation to the project: Population size correlates with magnitude of benefit/ impact that will emanate from the proposed project. Local leaders will have jurisdiction over areas in which the project will be implemented. These leaders will lend support to the project through information dissemination to the public. Ethnicity in the district shows some tribes being proportionately small in comparison to the dominant tribe. However none of these are classified as “Indigenous People” hence this disparity in population size is inconsequential for all project components.

Wobulenzi where Bukalasa Agricultural College is located is noted to have one of the highest population densities in the District (Figure 2) which may have a direct correlation to number of impact receptors (e.g. people exposed to risk of accidents on roads used by construction traffic) and expected number of people seeking construction jobs.

3.2.5.2 Land use and tenure

The total area of Luwero District is approximately 5572.2 km² of which 5112.2 km² is dry land and the rest is rivers and swamps. Farming, settlement, public and commercial establishments are the main land uses in the district.

Land tenure systems in the district are shown in Box 1 below:

Box 1: Land tenure systems in Luwero District

Customary tenure: This is a traditional method of owning, occupying and using land regulated by the customary land law of any given community or a specific area. The land may be owned either by the community, clan, king, chief families or individuals.

Free-hold tenure: This is where a person owns registered land for ever or for a short period as may be fixed as long as she observes the law governing it. The owner can lease out, sell, borrow money using a freehold title, pass on the land by will, and sub-divide the land to create rights for other people.

Mailo: This is where a person owns registered land forever, under a land system where land was formerly given to the Baganda chiefs in and outside Buganda by the 1900 agreement. The owner can lease out, sell, borrow money using a mailo title, pass on the land by will or sub-divide the land to create different interests.

Leasehold tenure: This is where the occupying and use of land is based on an agreement with the owner of the land at payment of a premium. The owner of the land allows that person to occupy and use the land for a specified period of time, usually five years, forty nine years or ninety nine years in return for regular rent payments. The grant may also be made in return for services or it may be free.

Relation to the project: Bukalasa College is located on land owned by Uganda Government under freehold tenure.

3.2.5.3 Education

Education is one of the major priorities in Luwero districts. The District Education Departments target training of the entire community through several programmes that include the government’s Universal Primary Education (UPE) for primary school-going children, pre-primary school training, tertiary and vocational training, college and university training. The overall objective is to create a developmental, literate society. There are 384 (248 government and 136 private/community) primary schools. UPE has tremendously increased the enrollment for primary education but the district is faced with the challenge of increasing levels of school drop outs at higher levels of education.

Relation to the project: Vocational skills stimulate and support small and medium enterprises (SMEs) products of which require access to markets. Farming is a key undertaking and source of livelihood in Luwero District therefore

skills development in Bukalasa Agricultural College will have a direct benefit to the district and nation at large. Therefore Components 1 and 2 will be beneficial to vocational training in Luwero District and access to markets associated with their activities.

3.2.5.4 Health services and sanitation

Only 43% (59/136) of the parishes have at least one Health Units (HU) but 57% (77/136) of the parishes do not have HU. This means that the majority of people walk a distance of more than 5 km to the nearest health facility for care. However all HU are easily accessed via all-weather motorable roads. Doctor to population ratio in the district is low at 1:25000. Access to safe water stands at 75%.

Relation to the project: Health and sanitation conditions will be most relevant for implementation of Component 2 of the project expected to utilize a number of construction workers. The risk of accidents at construction sites means that easy and quick access to health care units is essential.

3.2.5.5 Roads

A road network plays an important role in the advancement of national policies regarding economic development and poverty reduction through reduced transport costs. The district is served by a road network that includes 32 feeder roads (418.2 km) and 360 community access roads (1544.5 km). During the year under review, the road network was still found wanting. Community members, mainly the regular road users, continued to complain about the state of the roads characterized by potholes, narrow lanes, and with no culverts to enhance proper drainage.



Photo 2: An impassable Bamunanika-Kalagala Road in Kalagala Subcounty⁴

Relation to the project: Roads will support the project for transportation of construction materials and equipment supplied to the college. If impassable especially during wet seasons, bad roads could delay project implementation. It is also expected that accident risk might be higher during material transport on poor roads.

3.3 MBALE DISTRICT

Mbale District is home to Uganda Technical College Elgon (UTC Elgon) a Uganda Government tertiary institution, located in Eastern Uganda. Baseline conditions of the district are presented in sections below.

3.3.1 Geology, Hydrology and Topography

Mbale District is mainly underlain by a Pre-Cambrian rock system intruded by the odd Cretaceous-Tertiary age carbonatite ring complex. The pre-Cambrian rock system is mainly wholly granitised or high to medium metamorphosed formations consisting of undifferentiated gneisses and elements partly granitised and metamorphosed formations.

⁴ Source: Namara-Wamanga, S., *et.al.*, (2013). Local Government Councils' Performance and Public Service Delivery in Uganda: Luwero District Council Score-Card Report 2011/12. ACODE Public Service Delivery and Accountability Report Series No.1, 2013. Kampala.

The District is divided into three distinct topographical regions, namely lowland, upland and the mountainous landscape. The most striking topographical feature is Mount Elgon, with magnificent craters, deep valleys and ridges.

Relation to the project: Geology, hydrology and topography will apply to Component 2 that will entail civil works and building construction. This is especially in regard to obtaining earth (gravel and aggregate) materials.

3.3.2 Climate

The district experiences bimodal type of rainfall, with most precipitation falling in the period March-June and September-November and an average rainfall of 1500 mm per annum.

Relation to the project: Same as in Section 3.2.2

3.3.3 Land use and Land Tenure Systems

The main land uses in the Mbale District are crop farming and livestock rearing, fish farming and agro forestry. Others include bee keeping (apiary management), mushroom growing, physical settlements, woodlots and quarrying/mining activities (i.e. sand, stones and phosphate/vermiculite). The district also has various land cover types including grasslands, natural forests and woodlands. The district suffers vegetation loss as a result of encroachment caused by land clearance for agriculture (mainly production of food for household use). This continues to occur in the entire Mt. Elgon region and in particular the areas neighboring Mt. Elgon National Park. Vegetation has also been lost due to Infrastructural, farming and settlement and urbanization. Small trading centres are rapidly expanding due to increased rural-urban migration. All these activities, coupled with a growing population in the District, have heavily impacted land use in Mbale.

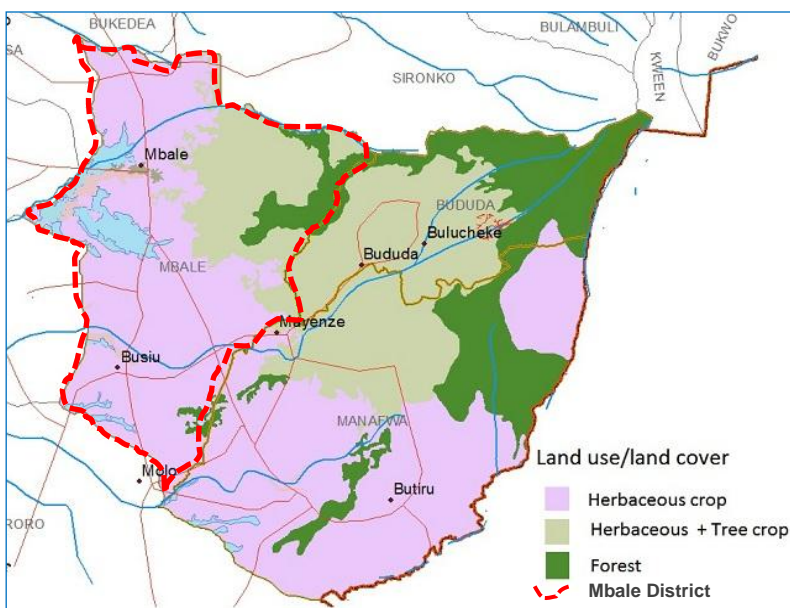


Figure 3: Landuse in Mbale District (dotted boundary)⁵

3.3.4 Population and ethnicity

The 2002 National Census estimated the population of Mbale District at 332,200, with an annual population growth rate of 2.5%. Uganda did not carry out the planned census in 2012 and therefore more recent definitive population data for the region is not available. However taking into account the growth rate, it is estimated that the population of the District in 2013 was approximately 436,000. With a land area of 534.4 km², the district has about 816 persons per km², making it one of the most densely populated parts of Uganda. The Project site itself is uninhabited and the area around it, sparsely populated. Mbale town is the major urban area with a population of more than 150,000. The

⁵ Source: Climate Change Unit, Ministry of Water and Environment – Uganda.

majority of the people within the proposed site Christian and some are Muslims. Prevalent ethnic groups are the Bagisu and Bagwere and the main language spoken is Lugisu. However as with other parts of Uganda there has been a lot of internal migration and it is not uncommon to find other ethnic groups such as Baganda, Iteso and some Basoga living in the area. About 90% of the District population lives in rural areas and 10% live in urban and peri-urban areas.

Relation to the project: Same as in Section 3.2.5

3.3.5 Education and Literacy

Education is important for socio-economic transformation because it provides the means through which skills are imparted and attitudes and practices altered. Primary education is part of what is referred to as basic education and is often used as an indicator of literacy. Mbale District performance on key primary education indicators can be described as positive. Enrolment and staffing has continued to improve. The recent recruitment of 103 teachers has greatly improved the teacher-pupil ratio.

The district has a total of 104 rural government primary schools that had an enrolment of 76,884 pupils by the end of Feb 2008 of which 37,746 are boys and 39,138 girls. There are also 18 private primary schools and 10 pre-primary schools⁶.

Relation to the project: Same as in Section 3.2.5.3

3.3.8 Infrastructure

3.3.8.1 Roads

Mbale District has a total road network of 8238 km of which 236 km are district roads, 120 km are national roads, while 467 km are community access roads. Maintenance of roads in the district is still a major challenge due to lack of funds.



Photo 3: Kakungulu Drive in Mbale before and during rehabilitation

Relation to the project: Roads will support the project for transportation of construction materials and equipment supplied to the college. If impassable especially during wet seasons, bad roads could delay project implementation. It is also expected that accident risk might be higher during material transport on poor roads.

⁶ USAID SDS Programme site: <http://www.uganda-sds.org/partner-districts-list/eastern-region/mbale> (accessed 13/Sep/2014).

3.3.8.2 Water supply

It is estimated that 62% of the people in Mbale District have access to safe water. The functionality rates of water supply facilities in urban and rural areas is 94% and 89% respectively. According to the Directorate of Water Development Mbale District had a total of 997 domestic water points in financial year (FY) 2010-2011, of which 11 had not been functional for more than 5 years and were considered abandoned. In FY 2011/12, the district undertook to extend the Busano gravity flow scheme to Bushiende and as a result, 25 boreholes were sunk across the district to serve the villages of Mukanga, Kisenyi, Kanikwa B, Kadebede, Namanyonyi, Nabitende, Namabasa IV.

Relation to the project: Availability of water will be essential for drinking, washing and sanitation needs of workers at construction sites during project implementation. Due to the relatively low access to safe water it is imperative that contractors take due care not to damage water sources or supply facilities at material source sites, along material transport routes or at construction sites, which would cause water scarcity.



Photo 4: Children fetch water from a pipe damaged during road works in Bubyangu Subcounty⁷

3.3.9 Natural resources

The district is well endowed with fresh water supplies from Mountain Elgon water shed with numerous rivers flowing to the lowlands, fertile volcanic soils especially on the ridges transcending the slopes and ridges of the Mt. Elgon, a good climate, and good scenery for which is a tourist attraction. The lowlands have numerous wetlands that receive the overflows from the ridges though they are along most valleys where rivers and streams flow to differing extents. There are sand and stone quarry sites that have been established at Busiu, Busoba, Namagumba, Bunghokho and Namanyonyi where people partly derive their livelihoods. The district has three forest reserves, Kolonyi, Namatala and the Mbale peri-urban plantation.

Relation to the project: Construction of buildings at Elgon UTC will require water, gravel (murrum) and aggregate (crushed stone). These would be obtained by harnessing natural resources, which should be done in such a way that these resources are not contaminated or depleted. To ensure this, materials should be obtained from licensed sources/ sites or procured from licensed suppliers.

⁷ Source: Eguny, M., et.al., (2013). Local Government Councils' Performance and Public Service Delivery in Uganda: Mbale District Council Score-Card Report 2011/12. ACODE Public Service Delivery and Accountability Report Series No.6, 2013. Kampala

3.3.10 Healthcare

Mbale district's healthcare system comprises a total number of 45 Health facilities which are both privately and government owned. There are 3 health sub-districts in Mbale; Bungokho North, Bungokho South and the Municipal, which is semi-autonomous.

Relation to the project: Same as in Section 3.2.5.4

3.4 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. Baseline conditions of the district are presented in sections below.

3.4.1 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. 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.

Relation to the project: Mostly for Component 2 of the project, geology and topography will influence earthworks associated with material (crushed stone, gravel) associated with building construction at UTC Lira. Roads in low-lying areas in Lira District commonly have swamp crossings which flood in rain seasons. On poor roads these may be impassable affecting project delivery if materials were to be transported along these roads.

3.4.2 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. 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°C and 25.5°C, respectively. Absolute maximum temperature rarely rises beyond 36°C and absolute minimum rarely falls below 20°C. The Equatorial Trough and southeasterly 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 season⁸.

Relation to the project: Same as Section 3.2.2.

3.4.3 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*, 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,

⁸ Source: <http://liradistrict.com/> (accessed 13/Sep/2014)

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-odugu)* and *piliostigma thonningii (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.

Relation to the project: None of the project components will have major impact on ecological resources as long as (for civil works and building construction) waste is not dumped in roadside swamps and earth materials (gravel, crushed stone) are obtained from authorized sites. .

3.4.4 Socio-Economic Baseline

3.4.4.1 Population and Demographics

Results of 2014 national population census conducted in August 2014 are not yet out but Lira district population as of 2011 is estimated to be 403,100 with annual growth rate of 3.55 percent⁹. Other key population attributes of the district population are listed below:

- Population density: 124 people per km²
- Urbanization Level: 11.8%
- Infant population below 1 year: 33,584
- Population under 5 years: 148,776
- Children of primary school age (6-12 yrs): 159,741
- Population under 18 years: 210, 256
- Youth (18-29 years): 161,143
- Elderly (60+years): 31,601

Relation to the project: Same as Section 3.2.5.1

3.4.4.2 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 Kwanja 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.

Relation to the project: Implementation of the proposed project will be on college land and therefore no involuntary resettlement is anticipated. Where land use changes occur during project implementation, these should be managed as per the Resettlement Policy Framework (RPF) developed for this project.

⁹ District Development Plan 2010/2011– 2014/2015

3.4.4.3 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 which 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%.



Photo 5: Long waiting times at Ogur health center (HC) IV and Amach HCIV respectively in Lira District¹⁰



Photo 6: Local people washing clothes in swamp water in Barr Sub-county Lira District.
Photo credit: Mbabazi, J., et.al., (2013).

Relation to the project: Health and sanitation conditions will be most relevant for implementation of Component 2 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.

¹⁰ Mbabazi, J., et.al., (2013). Local Government Councils' Performance and Public Service Delivery in Uganda: Lira District Council Score-Card Report 2011/12. ACODE Public Service Delivery and Accountability Report Series No.7, 2013. Kampala.

3.4.4.4 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.



Photo 7: Pupils of Acwikot Primary School in Adekokwot subcounty Studying under a tree.

Photo credit: Mbabazi, J., et.al., (2013).

Relation to the project: *The low education levels and literacy might manifest in people seeking unskilled labour opportunities during construction or civil works at UTC Lira. For such a labour force, sensitization by contractor about occupational safety and health risks, prudent spending of wages, protection against HIV/AIDS and positive living would always be more essential than for a relatively literate workforce.*

3.4.4.5 Road infrastructure

Lira District is served by a network of 3,016 km, of road of which 1087.3 km are national roads, 354 km urban roads, 374.7km are district roads and 1,200 km are community access roads. On the whole, district and community roads were in an appalling condition with some in completely impassable condition. During FY 2010/11, only 24 km of roads were rehabilitated, 58.7 km periodically maintained and 354.3 km routinely maintained. This means that, at most, each km of road under the jurisdiction of the district is maintained once in six years which is far below the requirement for gravel roads.



Photo 8: Nearly impassable Amach-Agali road and Agweng HCII road

Relation to the project: Same as in section 3.2.5.5

3.5 BUSHENYI DISTRICT

3.5.1 Geographical location

Bushenyi District is located in South Western Uganda (see Section 3.1).

3.5.2 Topography and Geology

The landscape of Bushenyi consists of hills, valleys and some limited stretches of plain land. It has been observed that in some of the bare hills of Burungira, Ruhumuro Nyeibingo in Kyabgimbi Sub-County and Kigoma in Nyabubare Sub-County.

Bushenyi district is underlain by four main rock systems namely:

- *The Pre-Cambrian Rock System*

The rocks in this system are between 1.3 and 1.4 billion years old and are incompletely metamorphosed and highly folded. Some of the rocks in this Karagwe-Ankole system comprise of types like shales, quartzites, mudstones, schists, phyllites and conglomerates overlain by sand and clay.

- *Bunyoro-Toro Rock System*

This type is found beneath Ankole-Karagwe rock system and is also partly metamorphosed. In terms of age, the rock systems of this nature are estimated to be 3.5 billion years old. However, to-date these rocks have been exposed due to denudation and are made of phyllites, schists and gneisses.

- *Extrusive Igneous Rock System*

These are volcanic rocks of Pleistocene period formed during the Quaternary period. This type is only present in Kakanju Sub-county. Geology has an important bearing on the geomorphologic processes, topography and

drainage. The Bushenyi geology comprises of the Precambrian rocks known to be rich in mineral content. However, mineral exploitation is on small scale as the search for the actual and exact amount of mineral deposits is going on. The concession holders have to-date not disclosed how much mineral deposits there are under-ground.

Relation to the project: Mostly for Component 2 where civil works would be undertaken, local soil types, geology and relief will influence earthworks associated with building construction on the campus college.

3.5.3 Climate

Bushenyi district receives 1500-2000 mm of rainfall annually and the mean annual temperature ranges from 12.5° C to 30° C.

Relation to the project: Of all project components, climatic conditions will be most relevant to civil works and material transport during building construction on college campus (Component 2) because associated impacts: dust, noise and construction schedules can all be influenced by meteorological conditions. Dust impacts would be more significant during dry seasons. Generally noise is more noticed during low temperature seasons and under high humidity conditions.

3.5.4 Hydrology

Drainage does not present major challenges in the district but in some places, rivers and swamps have tended to be obstacles to road networks connecting communities or the district itself to other neighboring districts.

Relation to the project: Hydrology might affect the project only if transportation of construction material or equipment to UTC Bushenyi is impeded by flooded roads or damaged bridges and culverts .

3.5.5 Soil and vegetation and ecological resources

The district is endowed with loam fertile soils having varying proportions of sand and clay. It has tropical rain forest vegetation of Kalinzu, and North Imaramagambo, and savannah woodlands and wetland vegetation widely distributed in the District.

Relation to the project: Construction and civil works will be undertaken at college campus where no major impact on vegetation and ecological resources is anticipated. However, improper disposal, such as dumping in swamps of overburden stripped by civil works may affect watercourses (especially wetlands). Sandy clays are not easily eroded by wind and therefore, depending on season (dry or wet), dust emissions during civil works or on roads along which materials and equipment are transported may be minimal.

3.5.6 Socio-Economic Baseline

3.5.6.1 Population and Administrative structures

Bushenyi District was carved out of Ankole district in 1974 and in 1993 Ntungamo district was created and took away Rushenyi and Kajara counties. From July 2010, counties of Sheema, Bunyaruguru, Buhweju and Ruhinda were also split from Busheyi District and elevated to district status. Bushenyi Ishaka Town Council was also elevated to a municipal council after adding the parishes of Kashenyi, from Nyabubaare Sub-county, Mazinga, from Kakanju sub county, Ruharo, from Bumbaire Sub County and Rwenjeru, from Kyabugimba Sub County.

The district has a land area of 3949 square kilometers and is 910-2500 meters above sea level. The main physical features of the district include natural forests of Karinju and Imaramagambo covering an estimated area of 784 km². Bushenyi district has a population of 251,400 with the majority of people being Banyankole. Other ethnic groups include Bakiga, Baganda and Bakonjo. The major economic activities include semi-intensive agriculture, trade and commerce, transport, stone quarrying, sand mining, mineral mining, construction industry, tourism, and lumbering.

All districts in Uganda have the same structure comprising the Resident District Commissioner who represents the President in the district, LC V Chairperson leading the local government political structure, and Chief Administrative Officer (CAO) who heads the civil service in the district. Authority at the sub-county level is shared between the Sub-County Chief and the Local Council-3 (LC-3) chairperson. Parishes are led by the Parish Chief and the LC-2 chairperson while LC-1 Chairpersons lead villages. The accounting officer at the sub-county level is the Sub-county Chief, who is responsible for revenue collection and is directly answerable to the Chief Accounting Officer of the District. A district land officer oversees land administration issues including procedures of land acquisition and registration, valuation, surveying and settlement of disputes. The administrative structure thereof provides personnel that will be useful during implementation of the project, impact monitoring and compensation of affected people.

Relation to the project: Local leaders will support the project through information dissemination to the public. No "Indigenous People" are noted in the district.

3.5.6.2 Land use and tenure

a) Land use

There are essentially three broad land use categories namely: agricultural land, built up areas and those reserved for conservation. However, these land uses are not entirely exclusive of one another. There exists some form of land use combinations. These combinations are shown below in a conceptual framework of land use categories in the district.

- i) Area devoted to agriculture (crops and animal)
- ii) Exclusively built up areas
- iii) Exclusively reserved for conservation (Forest, wetland and wildlife areas)
- iv) Combination of built up areas and conservation (e.g. encroachments on wetland and forest areas)
- v) Combination of agriculture and conservation areas (e.g. buffer zones and forest reserves and wetland encroachments)
- vi) Combination of agriculture and built up areas (urban settlements in town councils).

b) Land tenure

Land tenure means all the rights provided by the legal system (institutional arrangements such as economic, social and political) through which individuals and groups gain access to land. It provides an arrangement that determines and regulates the manner in which land is owned and utilised. There are four main types of land tenure in Bushenyi district namely:

- Customary tenure
- Leasehold tenure
- Freehold tenure
- Mailo land

Customary/Kibanja tenure: This is the most widespread and oldest tenure known in the district. This is a system of land tenure under which the rights to land are regulated by local customs and is linked to family lineage and inheritance. This type of ownership was not legally recognised but it is now entrenched in the new Constitution (1995). The owner of land has rights to use and dispose it at will including passing it on to his sons and daughters.

This type of ownership has been associated with poor farming practices such as over stocking, over grazing, land fragmentation, intensive cultivation on steep slopes and inadequate soil conservation through soil and bush burning.

Leasehold Tenure: Leasehold is both a contract and agreement of an estate on land. It is a contract by which the owners of a superior interest in land grants to another an exclusive right to use and possess the land for a definite period of time. The Uganda Land Commission formerly granted the majority of the leasehold titles in the district over public land in the rural areas and by urban authorities over land within their boundaries, which they hold on statutory leases from Uganda Land Commission.

In urban areas, the leases were granted for 99 years after completion of development while in the rural areas, the period granted was usually 49 years. For most leases in the district, the lease period ranged between 5 and 49 years. However, in urban areas, leases have been abolished by the new 1995 Constitution. Today, the District Land Board has been empowered by the new constitution to grant leases. Former leases under the Uganda Land Commission (ULC) gave no definitive legal provisions prohibiting use of swamps and other forms of wetlands.

UTC Bushenyi is located on public land owned by Uganda Government.

Relation to the project: UTC Bushenyi is located on public land owned by Uganda Government but any land use on the campus that will be altered by the proposed project, such as college tutors farming on some sections of college land will have to be managed as guided by the resettlement policy framework prepared for this project.

3.5.6.3 Employment, livelihoods and natural resource use

Agriculture is the main economic activity in Bushenyi District. Traditional cash crops include coffee which is grown throughout the whole district, tea and some cotton. Food crops include bananas, finger millet, maize, sorghum, beans, sweet potatoes and cassava. Rice is grown in Kiyanga and Kanyabwanga. Fruits and Vegetables include pineapples, avocados, mangoes, paw-paws, tomatoes, onions and apples grown in Buhweju.

Relation to the project: Bushenyi UTC obtains food from local farmers, hence supporting livelihoods, local economies and household incomes.

4 OBJECTIVES OF THE ESMF

4.1 Objective of this ESMF

Key objectives of the ESMF are to:

- Provide a framework for integration of social and environmental aspects at all stages of project planning, design, execution and operation.
- Enhance positive social and environmental impacts of the project and avoid/minimize potential adverse impacts.
- Make environment information available to stakeholders and the public to foster consensus and project ownership or collective responsibility for socio-environment actions.

In line with environmental requirements of Government of Uganda (GoU) and the World Bank, the environmental and social safeguards policies shall be applied to the project components. The ESMF provides guidance for identifying potential environmental and social impacts during project planning, design and implementation and outlines management measures required to address them. Appropriate institutional arrangements for implementing the ESMF and capacity building needs have also been provided in the ESMF. Aspects related to compensation and resettlement are provided for under a separate resettlement policy framework (RPF).

4.2 Methodology used to prepare the ESMF

The ESMF was prepared based on the following methodology

- a) Document review
- b) Visit to selected beneficiary UTCs and consultation with college administration and nearby communities
- c) Consultations with key stakeholders in manufacturing, construction, agriculture/ agro-processing, including key government Ministries and/or Agencies.

Key stakeholders consulted for SDP include:

- i) Ministry of Education and Sports (Construction Management Unit)
- ii) Ministry of Trade, Industry and Cooperatives (MTIC)
- iii) Uganda National Roads Authority (UNRA)
- iv) Ministry of Lands, Housing and Urban Development (MLHUD)
- v) National Environment Management Authority (NEMA)
- vi) Alam Group of Companies (Manufacturing and Construction Sectors)
- vii) Roofings Group (Roofings LTD and Roofings Rolling Mill) – Manufacturing and Construction Industry.
- viii) Mukwano Group of Companies (Agriculture, and Manufacturing Industry)

Other interviewees during development of the ESMF were:

- ix) UTC Bushenyi:
Mr. Rugogamu Edgar (Academic Registrar), Mr. Muhairwe N. Francis (Dean of Students) and Ms. Tushabe Harriet (Institutional Relational Officer)
- x) Chairperson LC II, UTC Bushenyi Parish
Mr. Basil Batigirwa (Senior Citizen – 82 yrs old)

- xi) District Community Development Officer (DCDO), Bushenyi District Local Government
Mr. Basil Muhanguzi.
- xii) Bukalasa Agricultural Training College
Ms. Christine Anyait (Principal) and Ms. Mirembe Sarah K. (Warden)
- xiii) Chairperson LC II, Bukalasa Parish
Mr. Oyo Martin
- xiv) UTC Lira Interview
Mr. Tarwana Nathan (Principal), Mr. Omwa Michael (D. Principal), Mr. Abbas Nabwas (IRO) and Mr. Angela Geoffrey (Academic Registrar)
- xv) Principal Community Development Officer, Municipal Council/Acting District Community Development Officer. Lira District
Ms. Anono Christine
- xvi) Chairperson LC I, UTC Lira Village
Ms. Ekwang Semmy
- xvii) UTC Elgon
Mr. Andrew MUSAAZI (Principal), Mr. Apunyo A. Henry (Accountant), and Mr. Musiimaani David
- xviii) Senior Community Development Officer (CDO) and Ag. District CDO, Mbale District Local Government
Mr. Wandwasi Robert

5 POLICY, LEGAL AND INSTITUTIONAL FRAMEWORK

In this section the policies, legal and institutional frameworks for environmental management in Uganda are discussed.

5.1 Policy Framework

5.1.1 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. Table below presents development status and desired targets.

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 labor 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.

Relevance to the project:

Key strategies of Vision 2040 related to the project include:

- a) *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].*
- b) *Developing human resources and skills through building centres of 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].*

Therefore the project is in line with aspirations of Vision 2040.

5.1.2 Uganda's National Environmental Action Plan (NEAP) 1994

Uganda's National Environmental Action Plan seeks to promote and implement sound environmental policy. The NEAP represents the culmination of a series of initiatives and activities coordinated by the NEMA. It is the master plan for the environment in Uganda and contains a National Environment Policy, Framework Environmental Legislation and Environmental Strategy. The NEAP consists of Sectoral Plans for the medium and long term intended to lead to sustainable development in the country.

The NEAP has been innovative and included the following steps:

- The development of a National Consensus on the NEAP,
- The setting up of the National Environment Management Council,
- The establishment of the NEMA,
- The enactment of the legislation of the National Environment Act,

- The establishment of Working Groups to address thematic environmental issues.

The successful coordination and implementation of all the measures in the NEAP calls for national and international consensus and cooperation. The other environmental strategies are:

- The National Strategy and action Plan on Biodiversity Conservation,
- The National Strategies on Protection of Wetlands and Water Bodies,
- The National Strategy on Climate Change,
- The National Action Plan to combat Desertification.

Relevance to the project:

NEAP puts emphasis on environmental management, pollution and nuisances, and the necessity to safeguard the well-being of the population. These are the aspects this ESMF seeks to incorporate in the proposed project.

5.1.3 The National Environment Management Policy, 1994

The National Environment Management Policy for Uganda (1994) is the cornerstone of the country's commitment to social and economic development that is environmentally sustainable and brings the benefits of a better life to all. The National Environment Management Policy gives the overall policy framework, which calls for sustainable development that maintains and enhances environmental quality and resources productivity to meet human needs of the present generation without compromising ability of future generations to meet their own needs. The framework points out cross-sectoral guiding principles and strategies to achieve sustainable socio-economic development. The policy sets a guiding principle that Environmental Impact Assessment should be required for any activities which cause significant impact on the environment. Other relevant policies to be considered in the implementation of SDP include the Land Policy, the National Wetlands Conservation and Management Policy, the National Forestry Policy, the Water Policy, the National Health Policy, the National Forestry Policy, and the National Gender Policy.

Relevance to the project: *Specifically Component 2 of this project (which entails construction and civil works) will have environmental considerations related to this policy.*

5.1.4 National Development Plan 2010/11 – 2014/15

The education section is included in the National Development Plan (NDP) in 'increasing access to quality social services' which is one of the eight priority objectives identified in the plan. In 1996, the Universal Primary Education (UPE) was introduced and primary education became free the following year (1997) and compulsory in 2008. In April, 2010, the five-year National Development Plan (NDP) (2010/11 – 2014/15) was announced to replace the PEAP. While having emphasized poverty reduction as in the case of the PEAPs, this NDP places more emphasis on economic growth and upholding economic growth as the main pillar for national development.

Relevance to the project: *NDP recognises that technical, vocational (and university) education is not yet adequately supporting the development of a workforce with appropriate [Ref Section 61] and this justified the proposed project. Through improvement of technical skills and the national labour force, all proposed project components are contiguous with national socio-economic development objectives as inscribed in the NDP.*

5.1.5 The 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 to the project: This policy will apply to Component 2 of SDP which entails civil works and building construction.

5.1.6 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;

(iii) Allow to the extent possible, co-existence of individuals and communities owning land in areas where petroleum and minerals are discovered with extraction activity;

(iv) Protect the land rights and land resources of individuals and communities owning land in areas where mineral and petroleum deposits exist or are discovered;

(vi) 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 to the project: This policy will apply to Components 2 in so far as building construction will need stone aggregate and gravel.

5.2 Legal Framework

5.2.1 The Constitution of the Republic of Uganda

This is the supreme law of the land. The constitution provides for, inter alia, matters pertaining to land, natural resources (such as swamps, rivers and lakes) and the environment. Objective XXVII of the constitution declares that:

- a) Utilization of natural resources shall be managed in such a way as to meet the development and environmental needs of the present and future generations of Uganda, particularly taking all measures to prevent or minimize damage and destruction to land, air, and water resources resulting from pollution or any other kind of natural resource degradation.
- b) The state shall promote sustainable development and public awareness of the need to manage natural resources and to ensure that the utilization of the natural resources of Uganda shall be managed in such a way as to meet the needs of present and future generations.

Under Article 237 (2) of the Constitution, the Government holds in trust for the people and is required to protect natural lakes, rivers, wetlands, forest reserves, game reserves, national parks and any land to be reserved for ecological or tourism purposes for the common good of all citizens. In this regard, it is in the interest of the Government of Uganda that all socio-economic development activities protect and preserve the environment from abuse, pollution and degradation, thus sustainable development.

Relevance to the project: The constitution is the cardinal law upon which all environmental laws and guidelines are based. The right for everybody to a clean environment is proffered by S237 and by preparing this ESMF; the project aims to comply with this requirement.

5.2.2 National Environment Act CAP 153

The National Environment Act CAP 153 defines programs in the third schedule for which an EIA is a requirement. It also provides for guidelines and regulations for undertaking an EIA and emphasizes public participation in the conduct of an EIA. Sections 19, 20 and 21 of the Act lay out the EIA process, and Sections 22 and 23 make it a requirement to undertake environmental audits and monitoring of on-going activities or projects under implementation. The National Environment Act also established the National Environment Management Authority (NEMA), which is charged, inter alia, with the responsibility to oversee, coordinate, supervise and operationalize the EIA process in Uganda. Over the years, NEMA has issued several guidelines and regulations to ensure sustainable management of the environment.

Relevance to the project: This Act governs socio and environmental management in Uganda and the project's regulatory compliance will be benchmarked against this Act.

5.2.3 Other National policies, laws and regulations

Policies, laws and regulations listed below will be important during implementation of SDP. It is important that entities implementing this ESMF and various project activities review these policies, laws, regulations and guidelines to investigate specific clauses applicable to given activities and ensure conformance to regulatory requirements on social and environmental compliance.

Table 1: Applicable policies, laws and regulations

Polices and Strategic Plans:	Relevancy to the project
<i>The National Environment Management Policy, 1994</i>	This policy relates to general environmental protection and relevant to this project due to potential impacts that could arise from implementation of especially components 2 which entails civil works and construction activities.
<i>National Development Plan (NDP), 2010/11-2014/15</i>	Through improvement of technical skills and the national labourforce, all proposed project components are contiguous with national socio-economic development objectives as inscribed in the NDP.
<i>National Education Policy</i>	The current education policy focuses on expanding the functional capacity of educational structures and reducing on the inequalities of access to education between sexes, geographical areas, and social classes in Uganda. It advocates for the redistribution of resources viz a viz reforming the educational sector. More resources have been allocated to lower educational public sector through the UPE programme in order to enhance equity of access at that level between boys and girls. Higher education especially tertiary education is increasingly becoming liberalised, which in fact means privatised.
<i>National Water Policy, 1999</i>	A key objective of this policy is to guide development and management of water resources in Uganda following an integrated and sustainability concept so as to secure and provide water of adequate quantity and quality for all social and economic needs. This policy will especially apply to Component 2 which will involve civil works and construction of buildings at colleges, seeks to ensure protection of and equitable access to water resources.
<i>National Gender Policy, 2007</i>	The overall objective of the national gender policy is to mainstream gender in national development process to improve social, legal, political, economic and cultural conditions of citizens, especially of women. The gender policy will be essential in guiding gender equity throughout the project cycle from construction (labour force composition/ relations) to use of developed infrastructure.
<i>National Industrial Policy, 2008</i>	The policy identifies inadequate skilled industrial human resources, in particular, managers, industrial planners, engineers, technologists and technicians as a key industrial development constraint. This project therefore would support key development objectives enshrined in this policy.
<i>National Agriculture Policy, 2011</i>	This National Agriculture Policy was formulated in line with the Constitution of the Republic of Uganda. Objective XI (ii) provides that the state shall "stimulate agricultural, industrial, technological and scientific development by adopting appropriate policies and

Policies and Strategic Plans:	Relevancy to the project
	<p>enactment of enabling legislation.” Objective XXII (a) provides that the state shall “take appropriate steps to encourage people to grow and store adequate food.” This policy was aimed at translating these high level national obligations into policies and strategies to enable their achievement.</p> <p>In Section 2.6.5 the Policy recognises insufficient agricultural manpower and skills as a key constraint to agricultural sector development and improving of this aspect through this proposed project is in line with the National Agriculture Policy, 2011.</p>
<i>National Agricultural Education Policy, 2004</i>	<p>In 2006, Government developed a National Agricultural Education Policy and Strategy aimed at promoting farming as a business and professionalism in agriculture. Improvement of technical training at Bukalasa Agricultural College will be in line with aims and objectives of this policy.</p>
<i>Uganda National Youth Policy, 2001</i>	<p>The Policy recognises the large number, strategic importance and immense potential in the youth for development of the country. It however notes that youth have only been inadequately involved and their resources less harnessed in the socio-economic development and in the promotion and seeks, among other key objectives, to build capacity and provide relevant training and information [Sec 7.3]. This is also one of the aims of the Skills Development Project.</p>
<i>Uganda National ICT Policy, 2003 (under review)</i>	<p>This policy was developed pursuant to realisation that ICT is a key factor for national development. By supporting ICT infrastructure in UTCs, this project will be in line with The Ministry of Education and Sports’ policy to strengthen ICT training in schools and other institutions under its mandate.</p>
<i>National Policy on Disability in Uganda, 2006</i>	<p>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.</p> <p>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.</p> <p>Buildings to be constructed by this project should therefore consider access and use by PWD.</p>
<i>National Construction Industry Policy, 2010</i>	<p>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 <u>communication</u>, <u>socio-economic issues</u>, <u>contract law</u>, and <u>entrepreneurship</u> for business creation, and <u>business management</u>.</p> <p>The above has also been reiterated by several stakeholders consulted during development of this ESMF Therefore curriculum review proposed in this project presents opportunity to incorporate management and socio-environmental skills training in UTCs.</p>
Strategic Plans:	
<i>Education Sector Strategic Plan 2004-2015</i>	<p>The Plan was developed after recognising that [Ref. Sec 2.1] students are not acquiring the skills and knowledge they need for either the world of work or further education. At the post-primary level, the bifurcated system between academic preparation for higher education and vocational training for technician jobs is not appropriate for Uganda’s national development needs. A key objective of this plan is to help students acquire competencies they need to join the workforce and to continue their education. To achieve this objective, the Ministry of Education and Sports will:</p> <ul style="list-style-type: none"> (i) Revise curriculum to and improve instruction and assessment. (ii) Make more efficient use of resources. (iii) Reconfigure the post-primary sector, and centre Business, Technical and Vocational

Polices and Strategic Plans:	Relevancy to the project
	<p>Education and Training (BTNET) on a qualifications framework.</p> <p>The project is therefore in line with this Plan's aspirations.</p>
<i>The BTNET Strategic Plan 2012/13 – 2021/22</i>	<p>The 10-year Strategic Plan was designed to contribute during the years 2011 to 2020 to achievement of the following higher-level development objective for the BTNET system: Business, Technical, Vocational Education and Training (BTNET) ensures that Ugandans and enterprises acquire the skills they need to raise productivity and income. The Plan has five objectives which are in line with the aims of the Skills Development Project:</p> <ol style="list-style-type: none"> 1. Make BTNET relevant to productivity development and economic growth 2. Increase the quality of skills provision 3. Increase equitable access to skills development 4. Improve the effectiveness in BTNET management and organisation 5. Increase internal efficiency and resources available to BTNET
<i>National Industrial Sector Strategic Plan 2010-2020</i>	<p>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. Another is to review curriculum of existing vocation and technical training institutions to align with the industrial sector human resource capacity requirements.</p> <p>Both of the above are in line with aims of this Skills development Project.</p>
<i>Agriculture Sector Development Strategy and Investment Plan: 2010/11-2014/15</i>	<p>The strategy recognises that success in agricultural development, as has been stated, requires the contribution of other support sectors including energy, transport, agricultural finance, agricultural training, natural resource use and management. Without action by these support sectors, agriculture is not likely to achieve its objectives. The strategy also Calls for review and develop the curriculum of both farmer training institutes and agricultural colleges. These are in line with aims of the Skills Development Project.</p>
Regulations:	
<i>The National Environment Impact Assessment Regulations S.I. No. 13/1998</i>	<p>These regulations will guide EIA process and activities where any components of the project require undertaking socio-environmental impact assessment.</p>
<i>The Water Resources Regulations 1998</i>	<p>All project activities must comply with requirements of these regulations not only in regard to pollution control but also equitable access to water and permit obligations.</p>
<i>The National Environment (Wetlands, River Banks and Lake Shores Management) Regulations, 2000</i>	<p>These regulations will apply to Components 1 and 2 which are likely to be associated with works on or related to watercourses (wetlands and rivers).</p>
<i>The National Environment (Noise Standard and Control) Regulations (2002)</i>	<p>Implementation of SDP (especially civil works and building construction at UTC campuses) may need to control noise to comply with regulatory requirements.</p>
<i>The National Environment (Waste Management) Regulations 1999</i>	<p>All project components will require proper management of waster either at construction stage or operation stages, hence relevancy of these regulations.</p>
<i>The National Environment (Standards for Discharge of effluent into Water or on Land) Regulations, 1999</i>	<p>Component 2 may have activities that discharge effluent on land or water and this will be regulated by these regulations.</p>
<i>The National Environment (Audit) Regulations, 2006</i>	<p>All activities that undertake environmental and social impact assessment should conduct an audit within 24 - 36 months after commencement of implementation.</p>
Laws:	
<i>The National Environment Act, Cap 153</i>	<p>This Act provides for various strategies and tools for environment management, which also includes the ESIA (Section 19) for projects likely to have significant environmental</p>

Policies and Strategic Plans:	Relevancy to the project
	impacts. The Act also mandates NEMA with responsibility for environmental management in Uganda.
<i>BTVET Act 2008</i>	BTVET Act 2008 provides for the promotion and coordination of BTVET; the principles governing BTVET; establishment of an Institutional framework for promotion and coordination of BTVET; establishment of Uganda Qualifications Framework and financing of BTVET. The Skills Development Project aims to improve technical training in UTCs which is in line with BTVET Act.
<i>Education Act, 2008</i>	The sought to consolidate and streamline development and regulation of education and training, including technical education. The proposed project is in line with requirements of this Act.
<i>Building Control Act, 2013</i>	<p>The Act seeks to consolidate, harmonise and amend the law relating to the erection of buildings; to provide for building standards; to establish a National Building Review Board and Building Committees; to promote and ensure planned, decent and safe building structures that are developed in harmony with the environment; and for other related matters.</p> <p>Buildings to be constructed under this project should comply with requirements of this Act, specifically:</p> <ul style="list-style-type: none"> ▪ Not undertaking building operations without permit prohibited ▪ Not using prohibited building methods and materials ▪ Observing right of entry by Building Control Officer ▪ Obtaining an occupation permit before use of the building ▪ The project developer and contractor taking liability for causing accidents on building construction site if found responsible.
<i>The Agricultural Chemicals (Control) Act, No. 1 of 2006</i>	This Act was enacted to control and regulate the manufacture, storage, distribution and trade in, use, importation and exportation of agricultural chemical and other related matters save in accordance with regulations made under the Act, and the National Environmental Act, Cap 153 (section 3). Under this Act, the requirement of packaging, labelling or advertisement of agricultural chemicals is relevant in pesticides management to prevent illegal activities related to mislabelling and mis-packaging. In addition, section 13(2) provides for the period in which the seized agricultural chemicals can be detained and the power to dispose them off. The person in whose possession the chemicals were got has to consent in writing for these chemicals to be destroyed by the Government. It is therefore important to put in place an effective and efficient mechanism for disposal of the seized chemicals.
<i>National Environment (Waste Management) Regulations, 1999</i>	<p>These regulations require waste disposal in a way that would not contaminate water, soil, and air or impact public health. According to the regulations, waste haulage and disposal should be done by licensed entities. These Regulations will apply Component 2 of SDP which entails construction and will specifically be in regard to:</p> <ul style="list-style-type: none"> ▪ All categories of hazardous and non-hazardous waste; ▪ Storage and disposal of construction waste.
<i>The Water Act Cap 152</i>	This law will govern water use by any or all proposed project components.
<i>The Land Act, 1998</i>	Component 2 will entail land take and landuse change. These aspects including compensation and resettlement are governed by the Land Act 1998.
<i>The Public Health Act, Cap 281</i>	Project implementation may occasion public health risks and in this lies relevance of this law, which will apply to Component 2.
<i>Employment Act, 2006</i>	Labour conditions and relations when implementing the proposed project are governed by the Employment Act, 2006.
<i>Occupational Health and Safety (OHS) Act, 2006</i>	Safety of works on project sites will be essential to avoid accidents or fatalities due to work-related incidents and this is governed by this Act.
<i>Local Governments Act, Cap 243</i>	This Act gives local governments jurisdictional authority over areas they control. All districts in which SDP will be implemented will have full administrative policy and

Policies and Strategic Plans:	Relevancy to the project																											
	legal control over project activities.																											
<i>The Physical Planning Act, 2010</i>	No project activity will be legitimate when its design or implementation does not conform to provisions of this Act. This Act will particularly apply to Component 2.																											
<i>Land (Amendment) Act, 2010</i>	Amendments in this Act function in tandem with the Land Act, 1998 and will apply to Components 2 of proposed SDP.																											
<i>National Environment (Noise Standards and Control) Regulations, 2003</i>	<p>Section 7 of these regulations requires that no person shall emit noise in excess of permissible noise levels, unless permitted by a license issued under these Regulations. Section 8 imparts responsibility onto noise generators to use the best practicable means to ensure that noise does not exceed permissible noise levels. At construction sites corresponding limits are 75 dBA and 65 dBA for day and night time levels respectively.</p> <p><i>Table 3.1: National regulatory noise limits</i></p> <table border="1" data-bbox="565 600 1414 758"> <thead> <tr> <th rowspan="2">Facility</th> <th colspan="2">Noise limits dB (A) (Leq)</th> </tr> <tr> <th>Day*</th> <th>Night*</th> </tr> </thead> <tbody> <tr> <td>Construction sites</td> <td>75</td> <td>65</td> </tr> <tr> <td>Residential areas</td> <td>55</td> <td>45</td> </tr> </tbody> </table> <p>*Time frame: Day 6.00 a.m -10.00 p.m; Night 10.00 p.m. - 6.00 a.m.</p> <p>Source: <i>The National Environment (Noise Standards and Control) Regulations, 2003.</i></p> <p><i>These regulations are relevant to the Project if construction activities generate noise above permitted levels.</i></p>	Facility	Noise limits dB (A) (Leq)		Day*	Night*	Construction sites	75	65	Residential areas	55	45																
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	Day*	Night*																										
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<i>National Air quality Standards, 2006 (Draft)</i>	<p>Construction operations will generate dust and exhaust emissions, mainly from motorised equipment. The draft national air quality standards provide the following regulatory limits for various emissions as presented in table below.</p> <p><i>Table 3.2: Draft regulatory air quality limits</i></p> <table border="1" data-bbox="558 1031 1408 1436"> <thead> <tr> <th>Pollutant</th> <th>Averaging time for ambient air</th> <th>Standard for ambient air</th> </tr> </thead> <tbody> <tr> <td>Carbon dioxide (CO₂)</td> <td>8 hrs</td> <td>9.0ppm</td> </tr> <tr> <td>Carbon monoxide (CO)</td> <td>8 hrs</td> <td>9.0ppm</td> </tr> <tr> <td>Hydrocarbons</td> <td>24 hrs</td> <td>5mgm⁻³</td> </tr> <tr> <td>Nitrogen oxides (NO_x)</td> <td>24 hrs 1 year arithmetic mean</td> <td>0.10 ppm</td> </tr> <tr> <td>Smoke</td> <td>Not to exceed 5 minutes in any one hour</td> <td>Ringlemann Scale No.2 or 40% observed at 6m or more</td> </tr> <tr> <td>Soot</td> <td>24 hrs</td> <td>500 µg/Nm-3</td> </tr> <tr> <td>Sulphur dioxide (SO₂)</td> <td>24 hrs</td> <td>0.15 ppm</td> </tr> <tr> <td>Sulphur trioxide (SO₃)</td> <td>24 hrs</td> <td>200 µg/Nm-3</td> </tr> </tbody> </table> <p>Source: <i>Draft National air quality standards, 2006. Note: ppm=parts per million, "N" in µg/Nm⁻³ connotes normal atmospheric conditions of pressure and temperature (25°C and 1 atmosphere).</i></p> <p>These standards are relevant considering that project construction will require motorised machinery powered by diesel engines hence generating pollutants such as CO₂, NO_x, SO_x and particulates are expected to be emitted. Road dust will also be generated along gravel roads during material/ equipment transport and at college campuses during construction.</p>	Pollutant	Averaging time for ambient air	Standard for ambient air	Carbon dioxide (CO ₂)	8 hrs	9.0ppm	Carbon monoxide (CO)	8 hrs	9.0ppm	Hydrocarbons	24 hrs	5mgm ⁻³	Nitrogen oxides (NO _x)	24 hrs 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 hrs	500 µg/Nm-3	Sulphur dioxide (SO ₂)	24 hrs	0.15 ppm	Sulphur trioxide (SO ₃)	24 hrs	200 µg/Nm-3
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<i>The Persons with Disability Act, (2006)</i>	<p>The Government published its National Policy on Disability in February, 2006. It states that "four in every 25 persons in Uganda are persons with disabilities". Thus, the disability fraternity appreciates that by enacting the disability policy and other relevant pieces of legislation, the government of Uganda is fulfilling its constitutional obligation of addressing the plight of people with disabilities.</p> <p>Its strategic objective is "promoting equal opportunities and enhanced empowerment,</p>																											

Policies and Strategic Plans:	Relevancy to the project
	<p>participation and protection of rights of persons with disabilities (PWDs) irrespective of gender, age and type of disability". Article 16 explicitly recognizes the rights of persons with disability which states that the "Society and the State shall recognize the right of persons with disability to respect and human dignity".</p> <p>Sec. 22 of the act requires availability of accessible transport services to PWDs, who use mobility devices such as crutches and/ or calipers, or wheelchairs.</p> <p>This law is relevant to the proposed project in so far as buildings to be constructed at UTCs will be used by people with disabilities</p>

5.2.4 International Conventions

Uganda is signatory to several international conventions and agreements below but the proposed Skills Development Project will not affect or be affected by any international environmental conventions.

- a) Convention on wetlands of International Importance especially as Water Fowl Habitat- Ramsar Convention 1971
- b) Convention Concerning the Protection of World and Cultural Heritage 1972
- c) Convention on International Trade in Endangered Species of Wild Flora and Fauna – CITES 1973
- d) Convention on the conservation of migratory species of Wild animals 1979
- e) Vienna Convention for the protection of the Ozone Layer 1985
- f) Montreal Protocol on Substances that deplete the Ozone layer 1987
- g) Basel Convention on the Trans- boundary Movement of Hazardous Wastes and their disposal
- h) Convention on Biological Diversity- CBD 1992
- i) United Nations Framework Convention on Climate Change UNFCCC – 1992
- j) United Nations Convention to combat Desertification – UNCCD 1994
- k) Technical Cooperation Committees for the promotion of resources Development and Environmental Protection of the Nile Basin 1992
- l) Cooperation enforcement Operations Directed at illegal trade in Wild Fauna and Flora (the Lusaka Agreement) 1996

5.3 Institutional framework

While the project will be implemented by the Ministry of Education and Sports (MoES) Directorate of Higher, Technical and Vocational Education and Training (D/HTVET), entities below are key stakeholders:

- a) Ministry of Finance, Planning & Economic Development (MoFPED)
- b) Ministry of Trade, Industry and Cooperatives (MTIC)
- c) Ministry of Local Government (MoLG)
- d) Ministry of Agriculture Animal Industry and Fisheries (MAAIF)
- e) Ministry of Lands, Housing & Urban Development (MLHUD)
- f) National Environment Management Authority (NEMA)
- g) Ministry of Gender, Labour & Social Development (MGLSD)
- h) National Curriculum Development Center
- i) Luwero District Local Government
- j) Mbale District Local Government
- k) Bushenyi District Local Government
- l) Lira District Local Government

5.4 The EIA Process in Uganda

Where given activities of implementing any of SDP components require a full EIA, process to follow is presented in figure below:

- Project brief preparation (for projects that may not require full/ detailed EIA);
- Screening;
- Detailed environmental impact study;
- Decision making by NEMA (and lead agencies)

These are discussed in sections below and illustrated in Figure 4.

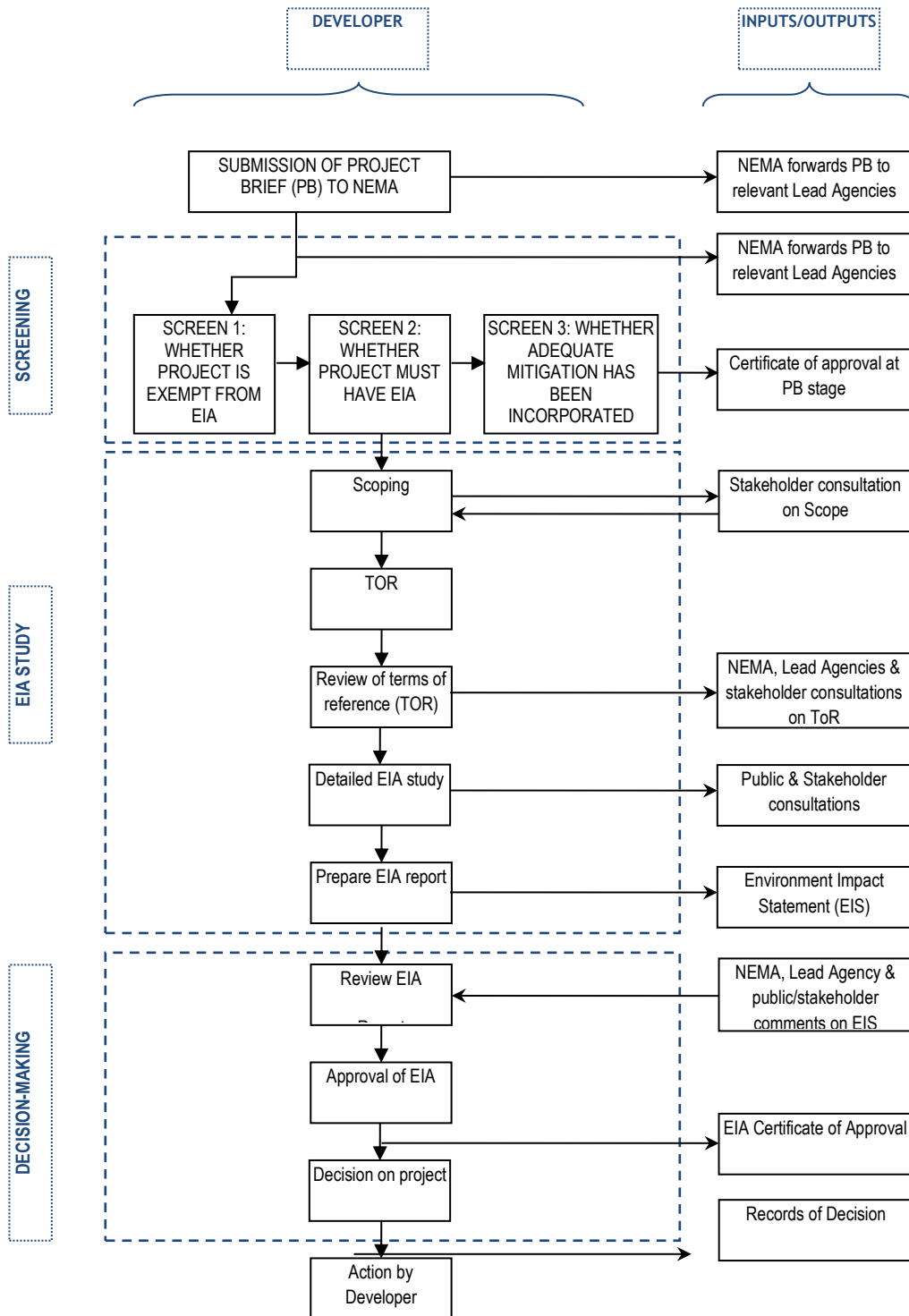


Figure 4: Summary of EIA process in Uganda

5.3.1 Preparation of a Project Brief

A concise project brief shall be prepared by the developer for submission to NEMA. This shall provide essential project information to guide NEMA on the screening criteria to which the proposed project should be subjected. The report shall include the following key information:

- a) Contact details of developer;
- b) Characteristics of project;
- c) Project description;
- d) Reasons for project;
- e) Background to the project;
- f) Project site;
- g) Baseline data;
- h) Physical form of the development;
- i) Construction practices;
- j) Operations;
- k) Preliminary analysis of alternatives;
- l) Other large projects within the area of influence of the proposed project;
- m) Characteristics of the potential impacts;
- n) Nature, extent and magnitude of impacts;
- o) Probability of impacts;
- p) Duration frequency and reversibility of impacts;
- q) Mitigations measures proposed; and
- r) Trans-boundary nature of the impacts.

Responsibilities: Project briefs should be prepared by project proponents (colleges supported and local governments, or centrally by MoES on behalf of all the CoEs).

5.3.2 Environmental and Social Screening

The objective of screening is to determine the extent to which a project is likely to affect the environment and therefore, be able to determine the level of assessment required. Screening is generally guided by the following criteria largely based on the contents of the Project Brief given in the previous Sub-section:

- Size (land area, capital investment) or location of project if it is in a fragile ecosystem e.g. wetland, forest, at watercourses
- Type of project (if listed in Schedule 3 of the National Environment Act)
- Potential socio-economic and biophysical impacts compared against set thresholds and standards, and
- Provision of an Environmental Management Plan (EMP) to address any identified impacts.

Screening is in line with National Environment Act and World Bank Environment Assessment Operational Guidelines that require screening and development of an ESMP which is approved through the local government system.

There are three screening stages:

- Screen I: The first screening decides on the projects that do not require an EIA.
- Screen II: Projects that require mandatory EIA are directly subjected to a detailed EIS.
- Screen III: Projects that do not fall under any of the above two categories do not require a mandatory EIA though they are associated with some minor, site specific, and easily predictable impacts. If adequate mitigation measures are already prescribed for a project in the Project Brief, it can be approved directly, and if not, then an Environmental Impact Review (EIR) is required. Depending on the results of the EIR, the project can be approved or subjected to a detailed EIS.

If a decision is made at the screening stage to exempt a project, or to approve its environmental aspects on the basis of identified adequate mitigation measures, such a decision shall be contained in a Certificate of Approval of the EIA issued by NEMA.

Responsibilities: Environmental screening will be undertaken by environmental “Desk Officer” of the Project.

5.3.3 Environmental Impact Study

According to the EIA Regulations 1998, EIS refers to the detailed study conducted to determine the possible environmental impacts of a proposed project and measures to mitigate their effects. The EIS process contains the following key stages:

- Scoping and ToR;
- Preparation of the EIS;
- Review of EIS and Decision on project; and
- Environmental Monitoring.

Responsibilities: EIA study will be undertaken by consultants hired by respective project proponents. Environmental and social impact assessment reports will be reviewed by NEMA together with local government environmental officers.

5.3.4 Scoping and ToR

Scoping is the initial step in the EIS. Its purpose is to determine the scope of work to be undertaken in assessing the environmental impacts of the proposed project. It identifies the critical environmental impacts of the project for which in-depth studies are required, and elimination of the insignificant ones. The scoping exercise should involve all the project stakeholders so that consensus is reached on what to include or exclude from the scope of work. It is also at this stage that project alternatives are identified and taken into consideration. The contents of the scoping report are the same as the project brief however more detail is likely to be needed. This may involve some preliminary data collection and field work.

The Developer takes the responsibility for scoping and prepares the scoping report after consultation with NEMA, Lead Agencies and other stakeholders. The developer with assistance from technical consultants will draw up the ToR for the EIS and submit a copy to NEMA that shall in turn be forwarded to Lead Agencies for comments, in this case including the District Local Government or District Environment Officer.

5.3.5 Preparation of the EIS

In preparing an EIS, relevant information is collected on issues of real significance and sensitivity. These are then analyzed, mitigation measures developed for the adverse impacts and compensatory measures recommended for unmitigated environmental impacts. Measures aimed at enhancing beneficial or positive impacts are also given. An EIS documents the findings and is submitted to NEMA by the developer.

5.3.6 Review of EIS and Decision on Project

The Developer is required to submit ten (10) copies of the EIS to NEMA for review and approval. NEMA then forwards a copy to the Lead Agencies for comments. NEMA in consultation with the Lead Agencies (in this case including the District Local Governments) shall review the contents of the EIS, paying particular attention to the identified environmental impacts and their mitigation measures, as well as the level of consultation and

involvement of the affected stakeholders in the EIS process. In this review, the level to which the ToR set out for the study is addressed shall be considered. In making a decision about the adequacy of the EIS, NEMA shall take into account the comments and observations made by the Lead Agencies, other stakeholders and the general public. NEMA may grant permission for the project with or without conditions, or refuse permission. If the project is approved, the Developer will be issued a Certificate of Approval.

5.3.7 Environmental Monitoring and Management Plan

Monitoring is the continuous and systematic collection of data in order to assess whether the environmental objectives of the project have been achieved. Good practice demands that procedures for monitoring the environmental performance of proposed projects are incorporated in the EIS.

The purpose of monitoring is to:

- Provide information that the predicted impacts from a project are within the engineering and environmental acceptable limits;
- Provide an early warning information for unacceptable environmental conditions;
- Ensure that the mitigation measures proposed in the environmental management plans are implemented satisfactorily; and
- Assist in identifying additional mitigation efforts needed or where alteration to the adopted management approach may be required.

To assist in implementation of identified mitigation and monitoring strategies, an environmental monitoring plan will be developed. It will describe the various environmental management strategies and programmes to be implemented. It will also identify the management roles and responsibilities for ensuring that monitoring is undertaken, results are analyzed and any necessary amendments to practices are identified and implemented in a timely manner.

The monitoring plan shall provide for monitoring of both project implementation and environmental quality. It shall contain a schedule for inspecting and reporting upon the implementation of the project and associated mitigation measures identified in the EIS. The monitoring plan shall also identify the key indicators of environmental impact. Further, the plan shall provide a schedule for monitoring each indicator and for reporting the monitoring results to NEMA or the Local Authority.

The data collected during monitoring is analyzed with the aim of:

- Assessing any changes in baseline conditions;
- Assessing whether recommended mitigation measures have been successfully implemented;
- Determining reasons for unsuccessful mitigation;
- Developing and recommending alternative mitigation measures or plans to replace unsatisfactory ones; and
- Identifying and explaining trends in environment improvement or degradation.

5.3.8 Public Consultation

The environmental impacts or effects of a project will often differ depending on the area in which it is located. Such impacts may directly or indirectly affect different categories of social groups, agencies, communities and individuals. These are collectively referred to as project stakeholders or the public. It is crucial that during the EIA process, appropriate mechanisms for ensuring the fullest participation and involvement of the public are taken by MoES in order to minimize social and environmental impacts and enhance stakeholder acceptance. In the case of

SDP prior to its implementation, meetings will be held at the Local Council 3 level involving leaders, Technical Personnel, and Communities.

NEMA prepared EIA Public Hearing Guidelines (1999) providing methodological guidelines on public consultation. An effective consultation process should generally ensure that:

- The public has a clear understanding of the proposed project; and
- Feedback mechanisms are clearly laid out and known by parties involved.

Different stages of the EIA process require different levels of public consultation and involvement. The key stages are:

- Public consultation before the commissioning of the EIS;
- Public consultation during the EIS; and
- Public consultation during EIS review.

Consultation can be before, during the EIA study or during its review as outlined below:

a) Consultation before the EIA

On submission of the project brief to NEMA, it might be decided that views of the public on the project are sought. NEMA is obliged to publish the developer's notification and other relevant documents in a public notice within 4 weeks from the date of submission of the project brief and/or notice of intent to develop.

It is important therefore, that a plan for stakeholder involvement is prepared before the EIS begins. Such a plan should consider:

- The stakeholders to be involved;
- Matching of stakeholders with approaches and techniques of involvement;
- Traditional authority structures and political decision-making processes;
- approaches and techniques for stakeholder involvement;
- Mechanisms to collect, synthesize, analyze and, most importantly, present the results
- To the EIS team and key decision-makers;
- Measures to ensure timely and adequate feedback to the stakeholders;
- Budgetary / time opportunities and constraints; and
- Public Consultations during the EIS.

b) Public consultation during the EIS

During the EIS, the study team should endeavour to consult the public on environmental concerns and any other issues pertaining to the project. Though consultations are very critical at the scoping stage, ideally, it should be an on-going activity throughout the study.

c) Public consultation during the EIS review

During the EIS review, the public is given additional opportunity for ensuring that their views and concerns have been adequately addressed in the EIS. Any earlier omissions or oversight about the project effects can be raised at this stage. To achieve this objective, the EIS and related documents become public after submission to NEMA. An official review appointment will be announced, where the reviewing authority has to answer questions and remarks from the public. These questions have to be handed in writing prior to the meeting

6 OVERVIEW OF THE WORLD BANK'S SAFEGUARD POLICIES

The World Bank's ten safeguard policies are designed to help ensure that programs proposed for Bank financing are environmentally and socially sustainable, and thus improve decision-making. These operational policies are outlined below and ones to be triggered by the project indicated:

Table 2: World Bank policies showing their trigger status by the project

	Safeguard Policies	Triggered?		Reason
		Yes	No	
1	OP 4.01 Environmental Assessment	√		OP 4.01 is triggered because the project will entail civil works and construction of buildings at selected UTCs with associated environmental and social impacts. The ESMF and all the safeguards studies (ESIA/ESMP) undertaken as part of this project shall be disclosed both in-country and at the WB's infoshop.
2	OP 4.04 Natural Habitats		X	OP 4.04 will not be triggered since no project component will be undertaken in natural habitats. All civil works and building construction and works will be carried out on existing college campuses.
3	OP 4.09 Pest Management	√		Training at Bukalasa Agricultural Training College may involve use of pesticides. Basic guidance has been included in the ESMF covering aspects related to procurement, transportation, storage, use and disposal of pesticides.
4	OP 4.11 Physical Cultural Resources	√		OP 4.11 is triggered because project investments will involve civil works and may encounter <i>chance finds</i> of heritage value. A <i>chance finds</i> procedure has been developed as part of the ESMF to guide management of any physical cultural resources (PCRs) that may be encountered during project implementation.
5	OP 4.12 Involuntary Resettlement	√		The project will involve upgrading of institutions specializing in small and medium scale manufacturing/construction and agriculture, which may require land take and involve civil works which might trigger involuntary resettlement. A resettlement policy framework (RPF) has been prepared to address involuntary resettlement.
6	OP 4.10 Indigenous People		X	OP 4.10 is not triggered since no components will be implemented in areas with indigenous peoples.
7	OP 4.36 Forests		X	OP 4.36 is not triggered because no project component will be implemented in natural forests.
8	OP 4.37 Safety of Dams		X	The project is not related to development of dams.

9	OP 7.50 Projects on International Waterways		√	This does not apply to any of SDP components. No project component will be commissioned on international waterways.
10	OP 7.60 Projects in Disputed Areas.		√	SDP will not be implemented in disputed areas.

7 KEY ISSUES FROM STAKEHOLDER CONSULTATION

A summary of stakeholders views is presented in table below and a detailed record provided in Annex 6.

Table 3: Summary of stakeholder views

1	Benefit of construction to local economies	During project implementation, especially construction of buildings at UTC campuses, contractors should buy local materials to benefit local suppliers and this also includes local labour.
2	Standards of materials to be used	Materials to be used during construction, including civil works and ICT networking should be of acceptable standards. These ideally should be tested by Uganda National Bureau of Standards (UNBS) or Pre-shipment Verification of Conformity (PVoC) to ensure that imports are inspected and certified before entry into Uganda.
3	Management Skills	<p>Management skills should be an important aspect of curricula review/ update because these are very important for today's technicians. Otherwise they meet a workplace environment that demands technical skills, management, communication and people skills. Management training should also be integrated in training for instructors.</p> <p>A key observation was that the assumption is if one was trained in technical skills, they become "job creators" but if they got no management skills to manage an enterprise, how will it live and grow? That's why many new companies do not live long after they are started!</p>
4	Socio-environmental and management skills	<p>Engineers focus on design and technicians implement what is designed. This makes technicians closer to people. Therefore knowledge of Environment and Social issues is important to teach in UTCs. This is vital because road projects have socio-environmental aspects and impacts technicians involved in road development should be aware of.</p> <p>Curriculum review will be a good opportunity to introduce socio-environmental and management skills in UTC's. These are necessary for today's technical graduates. For instance agriculture has several socio-environmental aspects: herbicides/ pesticides use or disposal once expired, wetland drainage so technical college students should have skills to manage impacts from these aspects. Indeed the project should first train college tutors in socio-environmental and management skills so they are equipped to adequately pass these onto students.</p>
5	Skill gaps noted in technical college graduates and recommendations on training curricula	<p>i) Training should not only dwell on technical skills but crosscutting issues as well. These include Socio-environmental and management skills because these are needed in workplaces they will eventually join.</p> <p>ii) Another gap in Technical training is lack of general context of what a designed product will be used for the different circumstances a product will work in e.g. a Wheelbarrow for use in urban environment would not be necessarily be of the same design as one for rural use. Technicians should be taught original critical innovative thinking.</p> <p>iii) Curriculum needs to adapt to local requirements. Internship must therefore be a key channel to expose students to real life practical problems</p>

		<p>experiences, otherwise teaching by the book will give students only theoretical knowledge.</p> <p>iv) Solution to practical problems should be emphasized and technical training should not dwell on only “text book” theory or machine operation. Therefore internship is essential and so is industrial training.</p> <p>v) Deficiencies noted were low practical skills and lack of familiarity with new/modern machinery used in industry today. UTCs should have machines otherwise graduates come out without skills on equipment.</p> <p>vi) Critical thinking and sense of ownership should be taught in technical colleges. Mindset of students should change while still in technical colleges. Tutors should bring practical experiences and case studies to class so people get real life examples.</p> <p>vii) Soft skills:</p> <ul style="list-style-type: none"> ▪ Supervision, management and communication skills are essential for technical college students. These should thus be part of UTC curricula. ▪ Health Safety and Environment (HSE) and social concepts should be part of UTC curricula, because: ▪ Safety in workplace is essential and a liability to employers. Use of requisite personal protection equipment (PPE) and other safety gear should be mandatory training for all technicians. ▪ Management skills are necessary in the workplace but trainees come with little or none at all! ▪ Time management and report writing skills should be part of technical training in colleges.
6	Climate change	Climate change proofing of infrastructure is necessary and should be considered for the case of buildings erected by the project.
7	Continual skilling and re-tooling	Short-term refresher courses in UTC’s, should be designed to make continual skilling and re-tooling of technicians possible.
8	Waste management during project implementation	<ul style="list-style-type: none"> ▪ <u>e-waste</u>: Old ICT equipment can be an electronic waste (e-waste) challenge if improperly disposed of disposal. ▪ <u>Asbestos</u> if encountered on roofs of buildings to be renovated should be properly managed by licensed contractors. ▪ Waste originates from clearing site, demolition, but often its proper management by contractors limited by funding since this item is normally left out and in “Preliminary Items” of the budget. Disposal of uncollected waste then remains a liability of the colleges. ▪ Local Environmental Officers should be involved in monitoring project activities entailing waste generation to guide contractors on approved locations where they can dump waste.

9	Skills Development Authority (SDA)	Skills Development Authority (SDA) should comprise people with practical industrial experience to provide appropriate guidance to the authority. Direction and skills development recommendations from the SDA should be market-driven able to respond to needs of the industries today.
10	Mode of Training in UTCs	<p>It was recommended that:</p> <ul style="list-style-type: none"> ▪ Year One focuses on general training ▪ Year Two students specialize in a given sector e.g. plastics, metallurgy, etc. Critical thinking and integrity should be taught in Year 2 as well. <p>Industrialists desired to have technicians graduating from college with specializations below:</p> <ul style="list-style-type: none"> ▪ Soap technology, ▪ Edible oil processing, ▪ Metallurgy, ▪ Plastic technology, ▪ Detergent technology, ▪ Boiler technology, ▪ Industrial Coolers, Compressors, Chillers, ▪ Industrial Electricians, ▪ Computerized Vehicle Mechanics.
11	Likely social-environmental impacts of civil works, building construction and networking	There may be sexual fraternization between contractor workers and students. Leading to risk of HIV/AIDS. In one school project where workers had offices on college campus and shared some facilities, students were impregnated by contractors! Contractors must not share school campuses and facilities with students.
12	Key views from UTC visited	<p>i) There is a big challenge experienced with our graduates due to training with old equipment which do not match the modern times of changed technology – for example the national diploma in architecture, the students are taught on a drawing board instead of using computers. Yes, there is a component of teaching them on computers to learn software packages like Auto cad and Arch Card but this comes at a later stage and yet they need to learn it right from the beginning. Secondly the students are taught engines in mechanical engineering but when they go to the workplace, there is what is called <i>mechatronics</i> – it combines mechanical with electronics and electrical, therefore they have to be retrained to be able to use certain equipment. Technological drawbacks are real challenges.</p> <p>ii) Infrastructure improvement will be a huge positive impact. The buildings, will provide better and large space for teaching and learning including lecture theatres, laboratories, workshops.</p> <p>iii) Construction might involve breaking down some of the old buildings at college campuses yet these have a historical significance for the college.</p> <p>iv) UTCs prevalently lack staff and training equipment for practical training. This project will therefore be timely opportune intervention for the UTCs.</p>

8 ENVIRONMENTAL AND SOCIAL IMPACTS OF SDP

Prediction and forestalling impacts of the proposed project should start with design and procurement stages as outlined below.

i) **Design stage:**

Reason: Some socio-environmental pacts can be prevented by nature of facility design. For provision of ramp access for disabled people on buildings when constructing new or refurbishing existing workshops, classrooms and other facilities (Refer to Component 2, Sub-component 2.3).

ii) **Procurement stage:**

Reason: It should be a contractual obligation for the contractor to fulfill minimum social-environmental requirements such as having in place an HIV Policy, OHS Policy, Gender Policy, etc and implement social-environmental controls prescribed by this ESMF. These are only possible when specific requirements are incorporated in bidding documents at tendering stage or in contracts of successful bidders.

iii) **Construction/ implementation stage (by contractor):**

Contractors have obligation to implement environmental mitigation actions specified in the ESMF. It is essential that this requirement is made mandatory in contractors' contracts and the following controls instituted:

- It should be a contractual requirement that Contractors must have a Socio-Environmental Officer to supervise compliance with socio-environmental requirements.
- The Supervising Consultant should not approve contractor's payment certificates when there are outstanding socio-environmental obligations or impacts not fully remedied.

Specific project impacts are discussed in tables below.

A) General socio-environmental impacts

i) Positive impacts

Largely, the proposed project will support skills development and no adverse socio-environmental impacts are predicted to arise. Positive impacts are:

- a) Improved capacity and skills for instructors after they are trained.
- b) Improved quality of graduates from Technical Colleges. With new and modern equipment, colleges will be able to train students on machines they would likely find in their workplaces after graduation.
- c) Creation of a Skills Development Authority (SDA) responsible for regulating and monitoring quality of training in technical colleges.
- d) Establishing sector skills councils (SSCs) that will:
 - i) identify and analyse skill requirements in the economic sector ;
 - ii) develop industry skills strategies and training plans to achieve priority goals;
 - iii) establish occupational and competency standards and qualifications as part of the Uganda Vocational Qualifications Framework (UVQF);
 - iv) evaluate performance in skills development;
 - v) regulate private sector training providers; and
 - vi) promote workplace-based training in the sector.

- e) Centers of Excellence (CoE) created within the existing institutions in specific trades (agriculture, manufacturing and construction) will enable replication of benefits to other institutions.
- f) Development of curriculum and assessment system to international standards would make Uganda's technical college graduates of high calibre and competitive nationally, regionally and internationally.
- g) Support to improving management and monitoring mechanisms in CoE will ensure continual improvement and sustained high quality in training institutions.

ii) Negative impacts

- Supported institutions should avoid pilferage of workshop equipment supplied by the project (and sale to ever increasing private vocational training schools) by undertaking proper inventory control and providing adequate security measures (burglar proofing windows/ doors and manned security) at workshops. A cost effective security surveillance system may be considered by the project.
- Equipment supplied should match requirements of updated curricula to avoid financial loss and redundant investment.
- Equipment support should ensure there is adequate room in workshop to accommodate units supplied. If there is need to modify buildings to increase space in machine workshops, this should be considered early in the planning stage. This will avoid equipment being kept in the open exposed to destructive elements of weather (rain, sun) and dust.
- Private vocational training institutions are increasing in number and technical skills. Instructors trained at the selected technical colleges may be lured away by higher pay at private institutions, defeating the purpose and intent of the project. No control can be proposed for this risk but general improvement in amenities, working conditions and security of employment/ tenure would ensure longevity of service from college tutors/ staff.

B) Socio-environmental impacts of Subcomponent 2.3 of Component 2.

i) Negative impacts

Potential negative impacts may arise from Sub-component 2.3 of Component 2 below which will entail construction/civil works.

“Sub-component 2.3: Expand and equip colleges and network facilities, including civil works. The project will support the upgrading of four CoEs, one in agriculture, and three in manufacturing/construction. In addition, the project would support three to five vocational institutes (VIs), through a phased approach, based on some eligibility and selection criteria to be linked to each CoE. This sub-component will support: (i) acquisition of training equipment and supplies in line with adapted curricula; (ii) civil works for the construction of new and/or refurbishing of existing workshops, classrooms and other facilities in line with the requirements to deliver the curricula.”

Potential negative impacts are outlined below and discussed in Table ES2:

- a) **Land take** where new buildings are constructed on land currently used by local people or college staff for subsistence farming or small-scale businesses. Displacement of such activities would cause negative socio-economic impact such as reduction in income or household food supplies.
- b) **Dust emissions** from construction activities and haulage of materials. This would affect students, staining buildings increasing their maintenance costs (need for repainting).
- c) **Temporary severance of access** to certain areas on campuses during construction
- d) **Public safety risks** from construction traffic.
- e) **Construction noise and vibration** affecting teaching and learning during the construction period.
- f) **Impact on resources of cultural heritage**

- g) **Damage to public and private property** due to civil works.
- h) **Poor labour management** such as not providing wash and drinking water, food, toilets at construction sites.
- i) **Safety risks for students near construction sites.** Such risks could arise from falling debris, uncovered trenches or exposed electrical wires at or near construction sites.
- j) **Improper construction waste management** such as disposal in wetlands or other unauthorized locations, contaminating local environmental resources (land, watercourses).
- k) **Sexual fraternization among construction workers and college** students leading to risk of unplanned pregnancies, HIV/AIDS or other sexually transmitted diseases (STDs).
- l) **Improper management (storage and disposal of expired chemicals) of agricultural chemicals** leading to occupational risk and environmental (air, water, soil) contamination.
- m) **Improper disposal of old training equipment discarded by beneficiary colleges.** This would be an aesthetic impact yet scrap equipment has monetary value to iron and steel smelters.
- n) **Occupational health and safety (OHS) risks** including not providing personal protective equipment (PPE).

ii) Positive impacts

- a) Employment to construction workers
- b) Income for material suppliers
- c) Improved infrastructure and new equipment in technical colleges will provide better teaching and learning experience for tutors and students respectively.

Possible negative impacts of project Components 2 and 3 are discussed in table below together with respective mitigation recommendations.

Table 4: Social-environmental impacts of Components 2, Sub-component 2.3

	Project component	Impact
1	<p>Sub-component 2.3:</p> <p>Expand and equip colleges and network facilities, including civil works. The project will support the upgrading of four CoEs, one in agriculture, and three in manufacturing/construction. In addition, the project would support three to five vocational institutes (VIs), through a phased approach, based on some eligibility and selection criteria to be linked to each CoE. This sub-component will support: (i) acquisition of training equipment and supplies in line with adapted curricula; (ii) civil works for the construction of new and/or refurbishing</p>	<p>xi) Land take and displacing prevailing uses at locations where new buildings would. Land use change would occur if new buildings are constructed on land currently used by either local people or college staff for subsistence farming or small-scale businesses. Displacement of such activities would cause negative socio-economic impact such as reduction in income or household food supplies.</p> <p><u>Mitigation:</u></p> <ul style="list-style-type: none"> ▪ Provide adequate notice for intended land use change to ensure that crops are harvested before project development or structures moved. Where this is impractical, the project should provide due compensation or resettlement to affected entities, as guided by the RPF. ▪ Ensure all grievances are conclusively addressed as per RFP. ▪ Compensate for any economic displacement occasioned by project development. <p>xii) Dust emissions during civil works</p> <p>Dust will stain roadside structures and taint merchandise or produce in shops and markets. Staining may require washing or repainting. Tainted goods for sale (especially sugar, flour, etc) would lose monetary value, hence negative socio-economic impact to affected road-side vendors. This impact will be short-term manifesting only during construction phase.</p> <p>Exposure to dust from construction materials, demolition and vehicle movement may pose short-term respiratory infirmities (e.g. coughs) to workers or college students and staff exposed.</p>

Project component	Impact
<p>of existing workshops, classrooms and other facilities in line with the requirements to deliver the curricula.”</p>	<p><u>Mitigation:</u></p> <ul style="list-style-type: none"> ▪ Contractor should water construction areas to control dust. ▪ Travel speeds past roadside markets should be safely low to avoid dust plumes. <p>xiii) Temporary severance of access to certain areas on campuses during construction</p> <p>Severance of access to various areas on campuses may arise during construction when which is a negative impact that would affect students.</p> <p><u>Mitigation:</u></p> <p>Contractors should devise temporary provisions to avoid severance of access to various areas on the campus.</p> <p>xiv) Public and occupational safety risks</p> <p>Civil works and construction traffic may pose several risks e.g. road accidents risk at road crossings, on college campuses and through trading centers for especially children, women and elderly people.</p> <p><u>Mitigation:</u></p> <ul style="list-style-type: none"> ▪ The Contractor must provide appropriate and adequate PPE to all workers. ▪ Safety drills should be carried out regularly to ensure workers are aware of occupational risks and their control measures. ▪ Fence of the construction site to limit un-authorised access by non-construction personnel. ▪ Safety signs, banksmen, speed control measures and adequate sensitisation of construction workers and people in project area should be undertaken to minimise accident risk. ▪ Contractors should work together with local leaders to agree on public safety measures which should be disseminated to local people. <p>xv) Construction noise and vibrations</p> <p>Construction noise or vibrations may disrupt teaching and learning at colleges. This impact can be significant where construction activities last for several months or spanning examination periods.</p> <p><u>Impact management:</u> Schools management should require contractors to schedule noisy activities outside class time or examination periods.</p> <p>xvi) Impact on resources of cultural heritage</p> <p>It is unlikely that construction at college campuses would encounter <i>chance finds</i> of cultural/ heritage value but if this happened, mitigation measures below are proposed:</p> <p><u>Mitigation:</u></p> <ul style="list-style-type: none"> ▪ In developing urban plans, municipalities should preserve resources (e.g.

	Project component	Impact
		<p>buildings, monuments) of cultural heritage.</p> <ul style="list-style-type: none"> ▪ During constructing infrastructure, physical cultural resources should be protected and conserved. Any chance finds encountered should be handed to the Department of Museums and Monuments for preservation. <p>xvii) Management of Construction waste/ debris</p> <p>Common waste streams are wood/ timber waste with sharp nails, cement bags, demolition debris, etc. Improper management of construction waste would pose public health impacts and environmental contamination.</p> <p><u>Mitigation:</u></p> <ul style="list-style-type: none"> ▪ It should be a contractual obligation for the contractor to properly manage construction waste at any UTC campus. ▪ Waste must not be dumped in swamps or hazardous waste reused by local people. Disposal of waste should be in a designated location as advised by a local environmental officer. <p>xviii) Damage to public and private property due to civil works.</p> <p>When no due care is taken by contractors, civil works damage public infrastructure on campuses (water mains, poles supporting 33 kV power lines) and private property (access roads, gardens, fences, etc) adjoining campuses on which construction is undertaken.</p> <p><u>Mitigation:</u></p> <ul style="list-style-type: none"> ▪ Utilities layout/location assessment relative to proposed structures should be undertaken prior to carrying out civil works in order to establish their location and any relocation need. ▪ Any damages should be duly compensated immediately by contractors utilising their public liability insurance.
		<p>xix) Improper management (storage and disposal) of agricultural chemicals leading to occupational risk and environmental (air, water, soil) contamination. This impact will apply to agricultural herbicides and pesticides used in training at Bukalasa Agricultural Training College.</p> <p><u>Impact management:</u></p> <p>The college should have proper storage of hazardous agro-chemicals and a structure protocol for acquisition/procurement of pesticides, safe onsite storage, use and disposal of any expired agro-chemicals including empty containers.</p> <p>An Agro-Chemicals Management Strategy (Annex 13) should be followed in managing agro-chemicals at the College.</p> <p>xx) Improper disposal of old training equipment discarded by colleges.</p> <p>The project will provide new equipment to use for training and instruction of students and ensure they are familiar with modern units the kind they would meet in workplaces upon employment. Once new equipment is provided to beneficiary colleges, old units will be discarded. Improper disposal or abandonment at campuses would be an</p>

	Project component	Impact
		<p>aesthetic impact yet scrap equipment has monetary value to iron and steel smelters.</p> <p><u>Impact management:</u> Colleges should explore opportunities to sell off discarded equipment to iron and scrap recycling companies.</p>
Positive impacts		
		<ul style="list-style-type: none"> ▪ Employment to construction workers: Construction activities will provide employment at each site but this is a temporary and reversible impact benefit ending with completion of construction works. ▪ Income for material suppliers: Local suppliers will earn money from provision of construction materials such as sand, cement, timber, steel bars, etc required during construction. ▪ Improved teaching and learning experience for tutors and students due to new infrastructure and equipment provided by the project.

9 GRIEVANCE MANAGEMENT

If any grievances arise during implementation Component 2 of SDP (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 CoE, comprised of representatives of CoE, the Contractor, the Supervising Consultant, the area LC.1 Chairperson, and representative of PAPs (where applicable).

Key objectives of the grievance process are supposed to be:

- 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.

Based on above objectives, grievance management process is described below:

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.

10 ENVIRONMENTAL AND SOCIAL SCREENING PROCESS

10.1 Environmental and Social Screening Process

Sections below illustrate stages (steps 1-7) of the environmental and social screening process leading to the review and approval of the environmental aspects of SDP activities. The purpose of this screening process is to determine which activities are likely to have negative environmental and social impacts; to determine appropriate mitigation measures for activities with adverse impacts and to incorporate mitigation measures into project activities. The extent of environmental work that might be required prior to the commencement of the sub-programs will depend on the outcome of the screening process described below.

10.2 Screening Steps

The environmental and social process of screening consists of the following steps:

Step 1: Screening of the SDP components

Project screening will be based on a project brief prepared by the project beneficiaries. Screening will be carried out by the Municipal or District Environment Officer at local government level. Every district, Town or Municipal Council in Uganda has an Environment Officer trained and experienced in environmental management and ESIA procedures. The Environment Officer working together with a Community Development Officer (CDO) will complete the Environmental and Social Screening Form to facilitate identification of potential environmental and social impacts, determination of their significance (see Annex 12), assignment of appropriate environmental category, proposal of environmental mitigation measures, and where required recommend undertaking of an Environmental & Social Impact Assessment (ESIA).

Environmental and Social aspects to be considered during screening include, but not limited to:

- Health and Safety
- Dust, noise and vibration pollution
- Materials acquisition
- Management of construction waste
- Employment opportunities
- HIV/AIDS
- Physical and economic displacement
- Impact on livelihoods
- Impact on health and sanitation
- Health and sanitation
- Impact on private property/ land acquisition (Note that land take impacts will be addressed in a RAP as guided by a RPF prepared for this project)

MoES will review the screening forms and where necessary consult NEMA especially to determine the level of environmental assessment required.

Step 2: Assigning of Socio-Environmental Categories

Assignment of appropriate environmental category to a particular activity will be based on the information provided in the environmental and social screening form that the District or Municipal Environmental Officer together with CDOs will have filled.

Step 3: Carrying out Socio-Environmental Assessment

After analyzing data contained in the environmental and social screening form and after having identified the right environmental category hence scope of the environmental and social assessment required, the Municipal or District Environment Officer working together with a CDO will make a recommendation to the project beneficiary establishing whether: (a) no ESIA will be required; (b) the implementation of mitigation measures will be required; or (c) a separate environmental and social impact assessment will be carried out. In case of activities under (a) and (b) above, SDP environmental and social mitigation measures checklist will be used (see Annex 2): Using the checklist environmental and social mitigation measures will be proposed by Municipal/ District Environment Officer and community development officers at high Local Government level and an ESMP developed (as shown in Section 10). In case of SDP activities falling under (c) above, and Environmental and Social Impact Assessment (ESIA) will be carried out to provide for environmental and social due diligence. The project beneficiary will source for an ESIA practitioner approved by NEMA to prepare terms of reference and to undertake the EIA study.

The ESIA will identify and assess the potential social-environmental impacts for the proposed activities, assess alternative solutions and will design mitigation, management and monitoring measures to be adopted. These measures will be quoted in the Environmental & Social Management Plan (ESMP) that will be prepared as part of the ESIA for each sub-program. The preparation of the ESIA and ESMP will be done in consultation with all relevant stakeholders, including the people likely to be affected by the project.

The ESIA will follow the national procedure established in the framework of the Environment Management Act, EIA Regulations, Guidelines and consistent with the WB OP 4.01. In situations where the screening process identifies the need for land acquisition, qualified service providers will prepare a RAP (Resettlement Action Plan), consistent with the OP 4.12, and the Resettlement Policy Framework (RPF) that has been prepared as a separate document for this program.

An ESIA report should have content and structure presented in Annex 10.

Step 4: Review and Approval

Review: At the district or municipal level, the District Environment Officer and communities will review the environmental and social screening forms and make recommendations as to whether results of the screening process are acceptable. In case an ESIA needs to be undertaken, ToR's for the study will be prepared and approved by NEMA. The ESIA study will be undertaken by the certified practitioners in accordance with ToRs approved by NEMA.

Approval/Rejection: Review of ESIA report is done by NEMA in consultation with the Lead Agencies and Local Governments.

The comments from the Local Authority will be considered by NEMA in making a final decision on project implementation. If the ESIA is approved, NEMA issues an environmental permit that confirms the ESIA has been satisfactorily completed and implementation of proposed sub-program may commence.

Step 5: Public Consultations and Disclosure:

Public consultations will take place during environmental and social screening process, and input from the public consultations will be reflected in the design of mitigation and monitoring measures.

According to the procedures governing the ESIA, public information and participation must be ensured during the scoping period and the preparation of the terms of reference of the Environmental and Social Impact Assessment. This will be done by ESIA practitioner, supported by \ project beneficiaries. Public consultations include:

- One or several meetings for the presentation of the sub-program with a gathering of local authorities, the populations, the concerned organizations;
- The opening of a register available to everybody where appreciations, remarks and suggestions formulated on the program.

World Bank requires disclosure of ESMF both in-country and at WB's infoshop.

Step 6: Environmental Monitoring

Environmental monitoring aims at checking effectiveness of mitigation measures. Municipal and District Environment Officers will monitor implementation of environment mitigation measures based on the contractor's work plan on quarterly basis. On annual basis the District Environment Officers and MoES in collaboration with NEMA will carry out a national assessment of SDP performance in environment and natural resource management using the indicators mentioned in Step 7.

Step 7: Monitoring indicators

The monitoring indicators that will be under ESMP for assessing environmental management for SDP include:

- Loss of vegetation
- Land degradation
- Soil and water contamination
- Dust levels occasioned by construction activities
- Construction noise control
- Construction waste management and disposal
- Compliance with Legislations.

Use of the indicators for environmental monitoring will be included in the training and capacity building program.

11 PROJECT IMPLEMENTATION ARRANGEMENTS

11.1 Implementation Arrangements

Implementation of the Skills Development Project will be by Ministry of Education & Sports but stakeholders below will also be involved:

- i) Ministry of Trade, Industry and Cooperatives (MTIC)
- ii) Ministry of Lands, Housing and Urban Development (MLHUD)
- iii) National Environment Management Authority (NEMA)
- iv) Ministry of Agriculture, Animal Industry & Fisheries (MAAIF)
- v) Ministry of Finance Planning & Economic Development (MFPED)
- vi) Ministry of Local Government (MoLG)
- vii) The World Bank (WB)

11.2 Roles of Local Governments

Local governments will be the recipients and beneficiaries of SDP. Town/ Municipal/ District Environmental Officers and Town/ Municipal/ District Engineers of Lira, Mbale, Bushenyi and Luweero will also be involved in monitoring SDP implementation, especially construction activities. District Land Officers (who are under the Ministry of Lands, Housing & Urban Development) may also be involved where land use change, property valuation and resettlement are encountered during project implementation. These officials have adequate skills to undertake this monitoring and do not require further training. At local government level, a community development officer (CDO) will be essential for effective implementation of the social aspects of the ESMF.

11.3 Monitoring socio-environmental aspects comprised in this ESMF

Town/Municipal or District Environment Officers will be key personnel responsible for monitoring environmental and social impacts of SDP activities. There is also a possibility of hiring supervising consultants to supervise the construction phase and these should have Environmental Specialist to monitor environmental aspects.

In accordance with provisions in National Environment Act Cap 153, National Environment Management Authority (NEMA) gazetted/warranted District Environmental Officers as inspectors for monitoring of socio-environmental impacts of developments at local government level, hence their mandate includes proposed activities of SDP projects. DEOs are gazetted Environmental Inspectors by NEMA following provisions in the National Environment Act Cap 153. They (DEOs) are appointed by the District Service Commission in Local Governments and their roles are provided for in the National Environment Act.

11.4 Due Diligence for Socio-environmental aspects at Planning, Design and Implementation Stages

Many potential socio-environmental impacts can be prevented or lessened by taking due consideration at planning and design stages. To ensure this is done, the following measures are recommended:

- a) **Design stage:** Project design should take consideration of socio-environmental impact mitigations proposed in this ESMF and any ESIA prepared for the project components. For instance, the designs should incorporate provisions for use by disabled persons, e.g. ramps.
- b) **Procurement/ Tendering:** Tendering processes should ensure that contactors provide evidence of socio-environmental policies and plans appropriate to this project and have personnel (e.g. Sociologist/ environmental Officer) to manage their implementation.

- c) **Stakeholder involvement:** Project Planning should entail extensive participation by stakeholder including community representatives, representatives of people with disabilities and civil society organizations to provide views on aspects to be considered in project designs. Project designs should also be presented to stakeholders to seek views on suitability/ appropriateness and garner public consensus.
- d) **Supervision and monitoring:** When implementing the project, contractors should have environmental management plans for construction activities and verifiable indicators against which they can be checked. Effective implementation of socio-environmental controls should be a contractual obligation. Monitoring during project implementation should involve all stakeholders to ensure that socio-environmental impacts are brought to the attention of implementing entities.

12 ENVIRONMENTAL AND SOCIAL MANAGEMENT PLAN (ESMP)

ESMPs will be prepared for all sub-projects and this section provides guidance and format for their (ESMPs) development.

Environmental and Social Management Plan (ESMP) for SDP is intended to ensure efficient environmental and social management of its activities. The ESMP translates recommended mitigation and monitoring measures into specific actions that will be carried out by the proponent. The main components of an ESMP are described in table below, which reflects practice at the World Bank. Ideally the ESMP should contain the following:

- Summary of the potential impacts of the proposal;
- Description of the recommended mitigation measures;
- Statement of their compliance with relevant standards;
- Allocation of resources and responsibilities for plan implementation;
- Schedule of the actions to be taken;
- Programme for surveillance, monitoring and auditing; and
- Contingency plan when impacts are greater than expected.

The ESMP should contain commitments that are binding on the proponent. It can be translated into project documentation and provide basis for a legal contract that prescribes responsibilities of the proponent. In turn, the proponent can use the ESMP to establish environmental performance standards and requirements for those carrying out the works or providing supplies. An ESMP can also be used to prepare an environmental management system for the operational phase of the project. Before start of any construction works, the Contractor shall be required to develop the Contractors ESMP to guide implementation of the civil works. The use of pesticides at Bukalasa Agricultural College shall be guided by the agro-chemicals management strategy in Annex 13 and simplified procedures that will be included in the Project Operational/Implementation Manual to be developed by MoES.

Table 5: Components of ESMP

Components of ESMP	
EMP Component	How to address
Summary of impacts	The predicted adverse environmental and social impacts for which mitigation is required should be identified and briefly summarised. Cross referencing to the EA report or other documentation is recommended.
Description of mitigation measures	Each mitigation measure should be briefly described with reference to the impact to which it relates and the conditions under which it is required (for example, continuously or in the event of contingencies). These should be accompanied by, or referenced to, project design and operating procedures which elaborate on the technical aspects of implementing the various measures.
Description of monitoring programme	The monitoring program should clearly indicate the linkages between impacts identified in the EIA report, measurement indicators, detection limits (where appropriate), and definition of thresholds that will signal the need for corrective actions.
Institutional arrangements	Responsibilities for mitigation and monitoring should be clearly defined, including arrangements for co-ordination between the various actors responsible for mitigation.
Implementation schedule and reporting procedures	The timing, frequency and duration of mitigation measure should be specified in an implementation schedule, showing links with overall project implementation. Procedures to provide information on the progress and results of mitigation and monitoring measures should also be clearly specified.
Cost estimates and sources of funds	These should be specified for both the initial investment and recurring expenses for implementing all measures contained in the ESMP, integrated into the total project costs, and factored into loan negotiations.

Source: World Bank, 1999

13 ESMF BUDGET

The budget below is proposed for this ESMF.

Table 6: Proposed ESMF budget

	Component	Cost (USD)
1	<p>Capacity building:</p> <p>a) Training staff in the MoES' Construction Management Unit and local government technical and environmental officers (in Districts of Lira, Mbale, Luwero and Bushenyi) in World Bank's Social and Environmental Safeguards requirements and EIA process in Uganda.</p> <p><i>Timing:</i> Before commencing project design.</p> <p>b) Training Ministry Social and Environmental Focal Persons in World Bank's Social and Environmental Safeguards requirements and EIA process in Uganda.</p> <p><i>Timing:</i> Before commencing project design activities.</p>	100,000
2	<p>Monitoring project procurement, design and implementation/ construction for social-environmental compliance. This also includes facilitation of local environment officers to monitor project activities</p> <p><i>Frequency:</i> Monitoring done every quarter throughout the project implementation period.</p>	150,000
	TOTAL (USD)	250,000

14 CONCLUSION

This ESMF describes the proposed SDP components, identifies likely social and environmental impacts and proposes management measures to control socio-environmental effects during project implementation.

This ESMF provides guidance on how environmental and social impacts of the project shall be assessed and managed. This notwithstanding, at a general level, potential impacts of project components have been discussed and possible mitigation provided.

Institutional and capacity assessment undertaken indicates that there is inadequate safeguards capacity at the Ministry of Education & Sports to enable overall coordination and supervision during implementation. Training is therefore recommended for staff in its Construction Management Unit. Alternatively, a Socio-Environment Safeguards Officer should be hired by the project on contract, to oversee its implementation. There is adequate safeguards capacity at the District/Municipal levels and this shall be used guide implementation of the ESMF.

It can also be concluded that there are adequate environmental and social policies in Uganda to guide the preparation of the relevant safeguards assessments during implementation, but with tendencies of weak follow-up during supervision and monitoring.

Once socio-environmental impacts are properly managed, the Skills Development Project will have immense benefit to the local human resource development efforts.

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Annexes

Annex 1: Environmental and Social Screening Form (ESSF)

Please type or print clearly, completing this form in its entirety. You may provide additional information on a separate sheet of paper if necessary. Kindly note that the information you are to provide is required by Section 22 of the National Environment Management Act of 1994 and it is an offence to give inaccurate information under Section 53 (C) of the same Act.

SECTION 1: INFORMATION ON THE CONTACT PERSON

Name: -----

Institutional Affiliation -----

Business Title / position -----

Business Address -----

Telephone -----

SECTION 2: DESCRIPTION OF THE PROPOSED PROGRAM

Name of Proposed Program -----

Date expected to start construction -----

Proposed location of program -----
(Attach a map or maps, covering the proposed site and Surrounding 5 km radius)

Land Area -----
(Approximate land area and of proposed location)

Current Land use (Describe how the land is being used at present)

Describe any Possible Alternative Site(s) -----

Describe other types of facilities (including health centers and schools) which are located within 100 meters of the site, or are proposed to be located near the proposed facility. Indicate the proximity of the proposed site to residential areas, national parks or areas of ecological, historical or cultural importance.

Indicate whether adequate infrastructure exists at the proposed location, or whether new building, roads, electricity and water lines, or drainage systems will need to be constructed as a part of the proposed program.

SECTION 3: EMPLOYEES AND LABOURERS

Number of people to be employed:

Employees and Laborers	During Construction	During Routine Operation
FULL-TIME		
PART-TIME		

Indicate whether you plan to construct housing / sanitation facilities for temporary or permanent Workers.

SECTION 4: PRODUCTS

Briefly state the nature of the product(s) or output of the proposed sub-program and the expected quantities on a quarterly or annual basis. Indicate the intended uses of the product(s).

Name of Product / Output	Description of uses	Anticipated Output per Qtr/Yr

SECTION 5: BY-PRODUCTS, WASTE MANAGEMENT AND DISPOSAL

Specify the nature of each waste or by-product and the quantity to be generated

Type	Description	Quantity in Kg per wk/mo	Proposed disposal method
Solid (Bulk)			
Solid (particulate)			
Liquid			
Gaseous			
Medical Waste			
Asbestos			
PCB			
Other			

Proposed methods of disposal or management of waste (e.g. Burning, burying, landfills etc.) and capacity needed to safely implement the proposed disposal method.

Type(s) and Source	Method of Disposal / Management	Capacity Needs

Indicate sources of noise pollution, type / quality of noise (i.e. machinery / repetitive pounding, etc.)

Source of Noise	Type of Noise

SECTION 6: ENVIRONMENTAL IMPACTS

Please indicate environmental impacts that may occur as a result of the proposed program.

A. The Biological Environment**8.0 The Natural Environment**

8.1 Describe the habitats and flora and fauna in the sub-program area and in the entire area expected to be affected by the sub-program (e.g., downstream areas, access roads):

8.2 Will the sub-program directly or indirectly affect:

8.2.1 Natural forest types?

8.2.2 Swamps?

8.2.3 Wetlands (i.e., lakes, rivers, swamps, seasonally inundated areas)?

8.2.4 Natural critical habitats (parks, protected areas)?

8.2.5 Other habitats of threatened species that require protection under Mozambican laws and/or international agreements?

YES ____ NO _____

8.3 Are there according to background research / observations any threatened / endemic species in the program area that could be affected by the program?

YES ____ NO _____

8.4 Will vegetation be cleared?

YES ____ NO _____

8.5 Will there be any potential risk of habitat fragmentation due to the clearing activities?

YES ____ NO _____

8.6 Will the program lead to a change in access, leading to an increase in the risk of depleting biodiversity resources?

YES ____ NO _____

Provide an additional description for "yes" answers:

9.0 Protected Areas

Does the sub-program area or do sub-program activities:

9.1 Occur within or adjacent to any designated protected areas?

YES ____ NO _____

9.2 Affect any protected area downstream of the program?

YES ____ NO _

9.3 Affect any ecological corridors used by migratory or nomadic species located between any protected areas or between important natural habitats (protected or not) (e.g. mammals or birds)?

YES ____ NO _

Provide an additional description for “yes” answers:

10.0 Invasive Species

10.1 Is the sub-program likely to result in the dispersion of or increase in the population of invasive plants or animals (e.g. along distribution lines or as a result of a dam)?

YES ___ NO _

Provide an additional description for a “yes” answer: _____

B. The Physical Environment

11.0 Geology / Soils

11.1 Will vegetation be removed and any surface left bare? YES _____ NO ___

11.2 Will slope or soil stability be affected by the program? YES _____ NO ___

11.3 Will the sub-program cause physical changes in the program area (e.g., changes to the topography)?
YES ___ NO ___

11.4 Will local resources, such as rocks, wood, sand, gravel, or groundwater be used? YES ___ NO ___

11.5 Could the sub-program potentially cause an increase in soil salinity in or downstream the program area?
YES ___ NO ___

11.6 Could the soil exposed due to the program potentially lead to an increase in lixiviation of metals, clay sediments, or organic materials? YES ___ NO ___

12.0 Landscape / Aesthetics

12.1 Is there a possibility that the sub-program will adversely affect the aesthetics of the landscape?
YES ___ NO ___

13.0 Pollution

13.1 Will the sub-program use or store dangerous substances (e.g., large quantities of hydrocarbons)?
YES ___ NO ___

13.2 Will the sub-program produce harmful substances? YES ___ NO ___

13.3 Will the sub-program produce solid or liquid wastes? YES ___ NO ___

13.4 Will the sub-program cause air pollution? YES ___ NO ___

13.5 Will the sub-program generate noise? YES ___ NO ___

13.6 Will the sub-program generate electromagnetic emissions? YES ___ NO ___

13.7 Will the sub-program release pollutants into the environment? YES ___ NO ___

13.8 Will the sub-program generate medical waste? YES ___ NO ___

13.9 Will the sub-program generate asbestos? YES ___ NO ___

14.0 Will the sub-program generate PCB? YES ___ NO ___

C. Social Environment

14.0 Land use, Resettlement, and/or Land Acquisition

- 14.1 Describe existing land uses on and around the sub-program area (e.g., community facilities, agriculture, tourism, private property, or hunting areas):
- 14.2 Are there any land use plans on or near the sub-program location, which will be negatively affected by sub-program implementation? YES ____ NO _____
- 14.3 Are there any areas on or near the sub-program location, which are densely populated which could be affected by the sub-program? YES ____ NO _
- 14.4 Are there sensitive land uses near the program area (e.g., hospitals, schools)? YES ____ NO ____
- 14.5 Will there be a loss of livelihoods among the population? YES ____ NO ____
- 14.6 Will the sub-program affect any resources that local people take from the natural environment? YES ____ NO ____
- 14.7 Will there be additional demands on local water supplies or other local resources? YES _ NO _
- 14.8 Will the sub-program restrict people's access to land or natural resources? YES _____ NO ____
- 14.9 Will the program require resettlement and/or compensation of any residents, including squatters? YES __ NO ____
- 14.10 Will the sub-program result in construction workers or other people moving into or having access to the area (for a long time period and in large numbers compared to permanent residents)? YES ____ NO ____
- 14.11 Who is/are the present owner(s)/users of resources/infrastructures the sub-program area?
- 15.0 Loss of Crops, Fruit Trees, and SDP Infrastructure
Will the sub-program result in the permanent or temporary loss of:
- 15.1 Crops?
- 15.2 Fruit trees / coconut palms?
- 15.3 SDP infrastructure?
- 15.4 Any other assets/resources?
- 16.0 Occupational Health and Safety, Health, Welfare, Employment, and Gender
- 16.1 Is the sub-program likely to safeguard worker's health and safety and public safety (e.g., occupational health and safety issues)? YES __ NO ____ If YES state how:.....
.....
- 16.2 How will the sub-program minimize the risk of accidents? How will accidents be managed, when they do occur?
- 16.3 Is the program likely to provide local employment opportunities, including employment opportunities for women? YES ____ NO ____

Provide an additional description for "yes" answers:
- 17.0 Historical, Archaeological, or Cultural Heritage Sites
Based on available sources, consultation with local authorities, local knowledge and/or observations, could the sub-program alter:

- 17.1 Historical heritage site(s) or require excavation near the same? YES NO
- 17.2 Archaeological heritage site(s) or require excavation near the same? YES NO
- 17.3 Cultural heritage site(s) or require excavation near the same? YES NO
- 17.4 Graves, or sacred locations (e.g., fetish trees or stones) or require excavations near the same?
YES NO

N.B. For all affirmative answers (YES) Provide description, possible alternatives reviewed and/or appropriate mitigating measures.

D. RECOMMENDATIONS:

Based on the above screening results, the following recommendations are made:

- 1) The sub-program has been assigned the environmental category A: Since the parent program has been categorized as a B, this sub-program cannot be funded.
- 2) The sub-program has been assigned the environmental category: B1: Implementation of the environmental mitigation measures as proposed in the Environmental and Social Checklist (with amendments as appropriate) and as per Environmental Guidelines for Contractors and Clause 8 contained in the Bidding Documents will suffice
- 3) The sub-program has been assigned the environmental category B2: The sub- program will require a separate Environmental Impact Assessment to be reviewed and approved by NEMA.
- 4) The sub-program has been assigned the environmental category C: The sub-program does not require any additional environmental work and therefore can be implemented immediately.

In the event that a sub-program requires land acquisition, please prepare and implement a Resettlement Action Plan (RAP) consistent with SDP Resettlement Policy Framework.

Please note that civil works cannot commence until the provisions of the RAP have been implemented to the satisfaction of the World Bank and the affected persons.

SECTION 8: AUTHENTICATION

I confirm that the information provided herein is accurate to the best of my knowledge

District/ Municipal Environment Officer

Annex 2: Environment and Social Mitigation Measures Checklist

Activity: Construction of institutional buildings	Environmental component affected	Nature of environmental concern	Required action /mitigation measure by Contractor
1. Burning of Brick ☐ Brick making ☐ Firewood ☐ Burning of bricks	☐ Soil ☐ Geology ☐ Vegetation	☐ Soil erosion. ☐ Dumping of soil waste material ☐ Uncovered pits ☐ pollution	☐ Sensitize community ☐ Tree planting ☐ Cover pits
2.Site Levelling ☐ Excavations in borrow areas. ☐ Grading to attain right camber	☐ Soil ☐ Human beings ☐ Animals ☐ Geology ☐ Plants	☐ Erosion and sedimentation ☐ Labor accidents. ☐ Silting. ☐ Creates ponds that encourage breeding of mosquitoes	☐ Restore the borrow areas with topsoil ☐ Proper grading of the sites at the right camber ☐ Provide first aid kits. ☐ Soil bunds should be constructed around a single designated area
3. Building	☐ Human beings	☐ Noise ☐ Accidents ☐ Dust	☐ Constructors' Dress ☐ First aid Kits ☐ Protective gear
4. Roofing	☐ Human beings	☐ Accidents	☐ Protective gear ☐ First aid Kits
5. Soak pits, septic tanks and disposal fields	☐ Human beings ☐ Land ☐ Water	☐ Contaminated water ☐ Land acquisition ☐ Disease outbreak ☐ Accessibility of the waste bins, collection points	☐ Community consultation. ☐ Consult with DEO for appropriate siting of waste collection point. ☐ Provide adequate waste collection bins ☐ Conduct hygiene education campaign.
<p>In addition to the above, attention should be taken to include relevant environmental and social considerations in stages below for reasons mentioned:</p> <p>iv) Design stage: <u>Reason:</u> Some socio-environmental pacts can be prevented by nature of facility design. For example provision of ramp access for disabled people on buildings.</p> <p>v) Procurement stage: <u>Reason:</u> It should be a contractual obligation for the contract to fulfill minimum social-environmental requirements such as having in place an HIV Policy, OHS Policy, Gender Policy, etc and implement social- environmental controls prescribed by this ESMF, subsequent EIA or Project Briefs. These are only possible when these requirements are incorporated in bidding documents at tendering stage or in contractors of successful bidders.</p> <p>vi) Operation stage: <u>Reason:</u> Use of buildings or other infrastructure to be supported by this project may have socio-environmental impacts such as fire risk, improper waste management, etc which must be prevented.</p>			

Annex 3: Sample Terms of Reference for EIA

In case an EIA has to be undertaken for any specific SDP, The Ministry of Education & Sports (MOES) will procure the services of a certified NEMA EIA Practitioner to undertake the EIA study. The following will be the content of the ToR's for this study.

Introduction and Context

This part will be completed at a time and will include necessary information related to the context and methodology to carry out the study. It will briefly describe the purpose and objectives of SDP, and the specific SDP for which the EIA is undertaken.

Objectives of EIA study

- To identify all likely positive and negative environmental impacts due to the specific SDP component;
- To identify and evaluate all significant negative environmental impacts, and propose appropriate mitigation measures for the attention of the developer, for incorporation into the final construction and operational phases;
- To propose an environmental management plan for all aspects of the specific project.

EIA study tasks

The consultant should realize the following:

- Describe the project characteristics, including extent, land requirement, material requirements, construction works, and the beneficiary community;
- Describe the biophysical characteristics of the environment where the project activities will be realized; and underline the main constraints that need to be taken into account at the field preparation, construction works and future project operations;
- Assess the potential environmental and social impacts related to project activities and recommend adequate mitigation measures, including costs estimation.
- Review alternative more cost-effective and environmentally and socially friendlier options for achieving the same objectives,
- Review policy, legal and institutional framework, at national and international level, related to the environment and identify the constraints for best practices in management with appropriate recommendations for improvements,
- Identify responsibilities and actors for the implementation of proposed mitigation measures,
- Assess the capacity available to implement the proposed mitigation measures, and suggest recommendations in terms of training and capacity building and estimate their costs,
- Develop an Environmental Management Plan (EMP) for the project. The EMP should underline (i) the potential environmental and social impacts resulting from project activities (ii) the proposed mitigation measures; (iii) the institutional responsibilities for implementation; (iv) the monitoring indicators; (v) the institutional responsibilities for monitoring and implementation of mitigation measures; (vi) the costs of activities; and (vii) the implementation schedule,
- Public consultations: The EIA results and the proposed mitigation measures will be discussed with populations, NGOs, local administration and other stakeholders impacted by the project activities. Recommendations from this public consultation will be include in the final EIA report.

Structure of the EIA Report

- Cover page
- Table of contents
- List of acronyms
- Executive summary
- Introduction
- Description of project activities
- Description of environment in the project area
- Description of policy, legal and institutional framework
- Presentation of results of public consultations and disclosure, and proposed social action by the developer;

- Description of methodology and techniques used in the assessment and analyses of project impacts,
- Description of environmental and social impacts of project activities,
- Environmental Management Plan (EMP) for the project including the proposed mitigation measures; the institutional responsibilities for implementation; the monitoring indicators; the institutional responsibilities for monitoring and implementation of mitigation; Summary table for EMP
- Recommendations
- References
- List of persons / institutions met

Consultant team

The Consultants will be NEMA -Certified EIA Practitioners or others agreed by NEMA.

Annex 4: Environmental Guidelines for Construction Work

- 1) These general environmental guidelines on construction work to be undertaken by any Project in Uganda shall apply to the SDP construction activities. For certain work sites entailing specific environmental and/or social issues, a specific Environmental and Social Impact Assessment, including an Environmental and Social Management Plan (ESMP), shall be prepared to address the above-mentioned specific issues based on the general environmental guidelines for construction work. In addition to these general Environmental Guidelines, the Contractor shall therefore comply with any specific ESMP for the works he is responsible for. The Contractor shall after being informed by the District Environmental officer here-in referred to as a focal point person (FP) about such an ESMP for certain work sites, prepare his work strategy and plan to fully take into account relevant provisions of that ESMP. If the Contractor fails to implement the approved ESMP as embodied in the contract documents and/or after written instructions by the designated works supervisor, the Client on the advice of the district local government leadership particularly the CAO and based on the authentic reports from the DEO reserves the right to arrange for execution of the missing action by a third party on account of the Contractor.
- 2) Notwithstanding the Contractor's obligation under the above clause, the Contractor shall implement all measures necessary to avoid undesirable adverse environmental and social impacts wherever possible, restore work sites to acceptable standards, and abide by any environmental performance requirements specified in an ESMP where such an ESMP applies.
- 3) Inclusion of environmental and social aspects in the bidding documents and contracts is necessary, including the need for an Environmental Specialist on the team of Supervising Consultant during construction.
- 4) These Environmental Guidelines, as well as any specific ESMP, apply to the Contractor. They also apply to any sub-contractors present on Project work sites at the request of the Contractor with permission from the Client.

General Environmental Protection Measures

- 5) In general, environmental protection measures to be taken at any work site shall include but not be limited to:
 - (a) Minimize the effect of dust on the environment resulting from earth works, vibrating equipment, construction related traffic on temporary or existing access roads etc. to ensure safety, health and the protection of workers and communities living in the vicinity of work sites and access roads.
 - (b) Ensure that noise levels emanating from machinery, vehicles and noisy construction activities (e.g. excavation, blasting) comply with NEMA standards and are generally kept at a minimum for the safety, health and protection of workers and nearby communities within the vicinity of noise sources.
 - (c) Ensure that existing water flow regimes in rivers, streams and other natural or irrigation channels are maintained and/or re-established where they are disrupted due to works being carried out.
 - (d) Prevent any construction-generated substance, including bitumen, oils, lubricants and waste water used or produced during the execution of works, from entering into rivers, streams, irrigation channels and other natural water bodies/reservoirs.
 - (e) Avoid or minimize the occurrence of standing water in holes, trenches, borrow areas, etc
 - (f) Prevent and minimize the impacts of quarrying, earth borrowing, piling and building of temporary construction camps and access roads on the biophysical environment including protected areas and arable lands; local communities and their settlements. Restore/rehabilitate all sites to acceptable standards.
 - (g) Upon discovery of graves, cemeteries, cultural sites of any kind, including ancient heritage, relics or anything that might or believed to be of archeological or historical importance during the execution of works, immediately report such findings to the Client so that the Ministry of Tourism, Trade and Industry may be expeditiously contacted for fulfilment of the measures aimed at protecting such historical or archaeological resources.
 - (h) In the event that the Contractor encounters chance finds during construction and/or rehabilitation activities, he will contact the appropriate MoES Official overseeing the sub-project with the view to passing on this information to: the Ministry of Tourism, Trade and Industry and the Authority of Research and Conservation of Cultural Heritage.
 - (i) Prohibit construction workers from engaging in the exploitation of natural resources such as hunting, fishing, and collection of forest products or any other activity that might have a negative impact

on the social and economic welfare of the local communities. Prohibit explicitly the transport of any bush meat in Contractor's vehicles.

- Prohibit the transport of firearms in Project-related vehicles.
 - Prohibit the transport of third parties in Project-related vehicles.
- (j) Implement soil erosion control measures in order to avoid surface run off and prevent siltation, etc.
 - (k) Ensure that waste management, sanitation and drinking water facilities are provided in construction workers camps.
 - (l) Ensure that, in as much as possible, local materials are used to avoid importation of foreign material and long distance transportation.
 - (m) Ensure public safety, and meet Ugandan traffic safety requirements for the execution of works to avoid accidents including Ugandan speed limits, and any other traffic restrictions related with construction activities at Project sites.
 - (n) Ensure that any trench, pit, excavation, hole or other hazardous feature is appropriately demarcated and signposted as safety measures.
 - (o) Ensure that casual workers are hired from neighboring communities.
 - (p) Generally comply with any requirements of Ugandan law and regulations.
- 6) Besides the regular inspection of the sites by the supervisor appointed by the Client for adherence to the Contract conditions and specifications, the Client may appoint an environmental inspector to oversee the compliance with these environmental conditions and any proposed mitigation measures. District or Municipal Environmental Officers may carry out similar inspection duties. In all cases, as directed by the Client's supervisor, the Contractor shall comply with directives from such inspectors.
 - 7) No trench of sand shall be left open for more than 7 days, unless duly authorized by the supervisor upon Contractor's request. Trenches and other excavation works shall be demarcated and/or signposted to avoid third party intrusion.
 - 8) General conditions related with topsoil stripping, storage and restoration apply.
 - 9) The Contractor will take measures to dispose of water used for construction activities in a manner that does not affect neighboring settlements.

Waste Management

- 10) All drums, containers, bags, etc. containing oil/fuel/surfacing materials and other hazardous chemicals shall be stored at construction sites on a sealed and/or bonded area in order to contain potential spillage. All waste containers, litter and any other waste generated during the construction shall be collected and disposed of at designated disposal sites in line with applicable Ugandan National waste management regulations.
- 11) All drainage and effluent from storage areas, workshops, housing quarters and generally from camp sites shall be captured and treated before being discharged into the drainage or natural environment system in line with applicable government water pollution control regulations.
- 12) Used oil from maintenance shall be collected, properly stored in sealed containers, and either disposed of appropriately at designated sites or be re-cycled.
- 13) Entry of runoff into construction sites, staging areas, camp sites, shall be restricted by constructing diversion channels or holding structures such as berms, drains, dams, etc. to reduce the potential of soil erosion and water pollution.
- 14) Construction waste shall not be left in stockpiles along the road, but removed and reused or disposed of on a daily basis.
- 15) Where temporary dump sites for clean excavated material are necessary, they shall be located in areas, approved by the Client's supervisor, where they will not result in supplemental erosion. Any compensation related with the use of such sites shall be settled prior to their use.
- 16) Areas for temporary storage of hazardous materials such as contaminated liquid and solid materials shall be approved by the supervisor and appropriate local and/or relevant national or local authorities before the commencement of work. Disposal of such waste shall be in existing, approved sites.

Quarries and Borrow Areas

- 17) The Contractor shall obtain appropriate licenses/permits from relevant authorities to operate quarries or borrow areas. The location of quarries and borrow areas shall be subject to review and approval by relevant local and national authorities.
- 18) New extraction sites:
 - (i) Shall not be located less than 200 m from settlement areas, archaeological areas, cultural sites – including churches and cemeteries, wetlands or any other valued ecosystem component, or on high or steep ground.
 - (ii) Shall not be located in water bodies, or adjacent to them, as well as to springs, wells, well fields.
 - (iii) Shall not be located in or near forest reserves, natural habitats or national parks.
 - (iv) Shall be designed and operated in the perspective of an easy and effective rehabilitation. Areas with minimal vegetation cover such as flat and bare ground, or areas covered with grass only or covered with shrubs less than 1.5m in height, are preferred.
 - (v) Shall have clearly demarcated and marked boundaries to minimize vegetation clearing and safety hazards for third parties.
- 19) Vegetation clearing shall be restricted to the area required for safe operation of construction work. Vegetation clearing shall not be done more than two months in advance of operations.
- 20) Stockpile areas shall be located in areas where trees or other natural obstacles can act as buffers to prevent dust pollution, and generally at a distance from human settlements. Wind shall be taken into consideration when siting stockpile areas. Perimeter drains shall be built around stockpile areas.
- 21) The Contractor shall deposit any excess material in accordance with the principles of these guidelines, and any applicable ESMP, in areas approved by local authorities and/or the supervisor.

Rehabilitation of Work and Camp Sites

- 22) Topsoil shall be stripped, removed and stored for subsequent rehabilitation. Soils shall not be stripped when they are wet. Topsoil shall not be stored in large or high heaps. Low mounds of no more than 1 to 2 m high are recommended.
- 23) Generally, rehabilitation of work and camp sites shall follow the following principles
 - (i) To the extent practicable, reinstate natural drainage patterns where they have been altered or impaired.
 - (ii) Removal of toxic materials and dispose of them in designated sites. Backfill excavated areas with soils or overburden that is free of foreign material that could pollute groundwater and soil.
 - (iii) Ensure reshaped land is formed so as to be stable, adequately drained and suitable for the desired long-term land use, and allow natural regeneration of vegetation.
 - (iv) Minimize erosion by wind and water both during and after the process of reinstatement.
 - (v) Compacted surfaces shall be deep ripped to relieve compaction unless subsurface conditions dictate otherwise.

Management of Water Needed for Construction Purposes

- 24) The Contractor shall at all costs avoid conflicting with water needs of local communities. To this effect, any temporary water abstraction for construction needs from either ground or surface water shall be submitted to the following community consultation process:
 - (i) Identification of water uses that may be affected by the planned water abstraction,
 - (ii) Consultation with all identified groups of users about the planned water abstraction
 - (iii) In the event that a potential conflict is identified, report to the supervising authority
 - (iv) This consultation process shall be documented by the Contractor (minutes of meeting) for review and eventual authorization of the water withdrawal by the Client's supervisor.
- 25) Abstraction of both surface and underground water shall only be done with the consultation of the local community as mentioned and after obtaining a permit from the relevant authority.
- 26) Abstraction of water from wetlands is prohibited.
- 27) Temporary damming of streams and rivers shall be subject to approval by the appropriate water regulatory authority – The Directorate of Water Resources Management. It shall be done in such a way as to avoid disrupting water supplies to communities downstream, and to maintain the ecological balance of the river system.

- 28) No construction water containing spoils or site effluent, especially cement and oil, shall be allowed to flow into natural water drainage courses. Similarly, wash water from washing out of equipment shall not be discharged into water courses or road drains.
- 29) Site spoils and temporary stockpiles shall be located away from the drainage system, and surface run off shall be directed away from stockpiles to prevent erosion and pollution.

Traffic Management and Community Safety

- 30) Location of temporary access roads shall be done in consultation with the local community and based on the screening results, especially in important or sensitive environments. Temporary access roads shall not traverse wetland areas or other ecologically sensitive areas. The construction of any access roads shall be submitted to a prior consultation process with potentially affected communities that will have to be documented (minutes of meetings) for review and approval by the appropriate Local Government entity.
- 31) Upon the completion of civil works, all temporary access roads shall be ripped and rehabilitated.
- 32) Measures shall be taken to suppress dust emissions generated by Project traffic.
- 33) Maximum speed limits for any traffic related with construction at Project sites shall conform to Ugandan regulations or any others put in place for the purposes of execution of works in a safe environment.

Salvaging and Disposal of Obsolete Components Found by Rehabilitation Works

- 34) Obsolete materials and construction elements such as electro-mechanical equipment, pipes, accessories and demolished structures shall be salvaged and disposed of in a manner approved by the supervisor and in conformity with the disposal regulations in force. The Contractor will agree with the supervisor which elements are to be surrendered to the Client's premises, which will be recycled or reused, and which will be disposed of through approved disposal processes or landfill sites.
- 35) Any asbestos cement material that might be uncovered when performing rehabilitation works will be considered as hazardous material and disposed of at a designated facility.

Compensation of Damage to Property

- 36) Compensation of land acquired permanently for Project purposes will be handled under Client responsibility based on the provisions of the RPF. However, in the event that the Contractor, deliberately or accidentally, damages property, he shall repair the property to the owner's satisfaction and at his own cost. For each repair, the Contractor shall obtain from the owner/user a certificate that the damage has been made good satisfactorily in order to indemnify the Client from subsequent claims.
- 37) In any case where compensation for inconveniences, damage of crops etc. are claimed by the owner, the Client has to be informed by the Contractor through the supervisor.

Contractor's Health, Safety and Environment Management Plan (HSE-MP)

- 38) Within 6 weeks of signing the Contract, the Contractor shall prepare an HSE- MP to ensure the adequate management of the health, safety, environmental and social aspects of the works, including implementation of the requirements of these general conditions and any specific requirements of an ESMP for the works. The Contractor's EHS-MP will serve two main purposes:
- 39) The Contractor's HSE-MP shall provide at least
 - (i) a description of procedures and methods for complying with these general environmental management conditions, and any specific conditions specified in an ESMP;
 - (ii) a description of specific mitigation measures that will be implemented in order to minimize adverse impacts;
 - (iii) a description of all planned monitoring activities and the reporting thereof; and
 - (iv) the internal organizational, management and reporting mechanisms put in place for such.
- 40) The Contractor's HSE-MP will be reviewed and approved by the Client before start of the works. This review should demonstrate if the Contractor's HSE-MP covers all of the identified impacts, and has defined appropriate measures to counteract any potential impacts.

HSE Reporting

- 41) The Contractor shall prepare bi-monthly progress reports to the Client on compliance with these general conditions, the sub-project ESMP if any, and his own HSE-MP. The Contractor's reports will include information on:
- (i) HSE management actions/measures taken, including approvals sought from local or national authorities;
 - (ii) Problems encountered in relation to HSE aspects (incidents, including delays, cost consequences, etc. as a result thereof);
 - (iii) Non-compliance with contract requirements on the part of the Contractor;
 - (iv) Changes of assumptions, conditions, measures, designs and actual works in relation to HSE aspects; and
 - (v) Observations, concerns raised and/or decisions taken with regard to HSE management during site meetings.
- 42) The reporting of any significant HSE incidents shall be done as soon as practicable. Such incident reporting shall therefore be done individually. The Contractor should keep his own records on health, safety and welfare of persons, and damage to property. It is advisable to include such records, as well as copies of incident reports, as appendixes to the bi-monthly reports. Details of HSE performance will be reported to the Client.

Training of Contractor's Personnel

- 43) The Contractor shall provide sufficient training to its own personnel to ensure that they are all aware of the relevant aspects of these general conditions, any project ESMP, and its own HSE-MP, and are able to fulfil their expected roles and functions. Specific training will be provided to those employees that have particular responsibilities associated with the implementation of the HSE-MP. Training activities will be documented for potential review by the Client.
- 44) Amongst other issues, training will include an awareness session for all employees on HIV-AIDS addressing the following topics:
- What is HIV/AIDS?
 - How is HIV/AIDS contracted?
 - HIV/AIDS prevention.

Annex 5: Protocol to Manage Chance Finds

Construction operations may encounter cultural and archaeological resources or chance finds. Construction can also reveal these buried resources, necessitating "salvage archaeology" for their recovery and protection. Once first stages of earthworks show signs of likely presence of archaeological resources, salvage entails quick excavation to remove artefacts or other traces of human settlement before extensive earth-moving continues. As a general construction principle, any archaeological "chance finds" should be handed to the Department of Museums and Monuments in the Ministry of Tourism, Trade & Industry (MITI).

A protocol for managing chance finds developed based on *The Historical Monuments Act, 1967* is provided in Box A7.1 below.

Box A7.1: Suggested protocol to manage "chance finds"

- a) The contractor shall not perform excavation, demolition, alteration or any works that may harm resources of cultural importance without authorization of the Engineering Assistant or officials from the Department responsible for museums and monuments.
- b) In case of chance finds, the Contractor shall mark, cordon and secure the subject site(s) to avoid damage in the course of road construction and immediately notify the Department responsible for museums and monuments.
- c) Opening of a new borrow or quarry site shall be witnessed and inspected by official(s) from the Department responsible for museums and monuments for the first 2 days of site opening. The official(s) shall maintain watching briefs during works, with clear procedures for protection and documentation of any "chance finds" encountered.
- d) The contractor is obliged to provide for and ensure archaeological intervention in case they come across new finds. This involves immediate discontinuation of works and notifying the Department responsible for museums and monuments about any discoveries.
- e) "Chance finds" encountered in presence of official(s) from the Department of Museums and Monuments shall be handed to them for transfer to the national museum.
- f) "Chance finds" encountered in absence of these official shall be handed over to supervising Engineering Assistant, Environmental Officer or District Engineer who would immediately notify officials of the Department of Museums and Monuments.
- g) The Contractor, and supervising engineer shall maintain contact details of the Department of Museums and Monuments to quickly notify it in case chance finds are encountered.

Annex 6: Record of stakeholder consultation

Stakeholder	Ministry of Trade, Industry and Cooperatives (MTIC)
Officer met:	Dr. Joshua Mutambi
Designation:	Acting Commissioner
Date of meeting (dd/mm/yy):	27/08/2014

A thematic record of issues discussed is presented below:

1. **Benefit of construction to local economies:** As MTIC, we'd want to see contractors buy local materials to benefit local suppliers and this also includes local labour.

2. **Standards of materials to be used**

Materials to be used during construction, including civil works and ICT networking should be of acceptable standards. These ideally should be tested by Uganda National Bureau of Standards (UNBS) or Pre-shipment Verification of Conformity (PVoC) to ensure that imports are inspected and certified before entry into Uganda.

3. **Most significant impact/ beneficiary**

Technical Colleges training in manufacturing skills will probably be the biggest beneficiary because UTC's (even Universities) do not have demonstration/ instruction machinery and equipment. It is noted currently that graduates of UTC's do not have adequate practical skills because of antiquated training/ demonstration equipment.

4. **Management Skills**

Management skills should be an important aspect of curricula review/ update because these are very important for today's technicians. Otherwise they meet work place environment that demands both technical skills, management, communication and people skills. Management training should also be integrated in training for instructors.

5. **Linkage of Skills Development Authority (SDA):**

Skills Development Authority (SDA) needs to integrate and work together with other institutions such as the Directorate of Industrial Training (DIT), National Curriculum Development Centre to avoid duplication of similar roles.

Stakeholder	Uganda National Roads Authority (UNRA)
Officer met:	Dr. David Kyaddondo
Designation:	Safeguards Manager
Date of meeting (dd/mm/yy):	28/08/2014

A thematic record of issues discussed is presented below:

1. Socio-environmental and management skills

Engineers focus on design and technicians implement what is designed. This makes technicians closer to people. Therefore knowledge of Environment and Social issues is important to teach in UTCs. This is vital because road projects have socio-environmental aspects and impacts technicians involved in road development should be aware of.

It was noted that what one learns in class determines what they act like or implement in workplaces, which therefore reiterates importance of socio-environmental skills.

A key observation was that the assumption is if one was trained in technical skills, they become “*job creators*” but if they got no management skills to manage an enterprise, how will it live and grow? That’s why many new companies do not live long after they are started!

2. Recommendations on training curricula

- viii) Training should not only dwell on technical skills but crosscutting issues as well. These include Socio-environmental and management skills because these are needed in workplaces they will eventually join.
- ix) Communication skills are vital and should be included in technical training curricular.
- x) Another gap in Technical training is lack of general context of what a designed product will be used for– the different circumstances a product will work in e.g. a Wheelbarrow for use in urban environment would not be necessarily be of the same design as one for rural use. Technicians should be taught original critical innovative thinking.
- xi) Curriculum needs to adapt to local requirements but if books and equipment are not from Uganda, how is this possible? Internship must therefore be a key channel to expose students to real life practical problems. The College Tutors should be trained to impart local practical experiences, otherwise teaching by the book will give students only theoretical knowledge.

3. Specialist or generalist Technician?

One would consider training as specialized and a “one way street” but upon graduation an electrical technician wants to do everything including civil/ building, mechanical, electrical work. So does training they get in UTCs produce a specialist or generalist Technician? This question should be important and considered during curriculum review.

Stakeholder	Ministry of Lands, Housing and Urban Development (MLHUD)
Officer met:	Mrs.Margaret Lwanga
Designation:	Environment & Social Management Specialist
Date of meeting (dd/mm/yy):	28/08/2014

A record of issues discussed is presented below:

1. Quality and longevity of equipment and facilities supplied by the project

For ICT infrastructure, weak procurement systems may see UTC's get junk or substandard equipment and infrastructure. Procurement entities should have safeguards against this.

There should be measures to enable procurement entities to "check the checked" and not only rely on foreign verification entities (e.g. PVoC).

2. Climate change

Climate change proofing of infrastructure is necessary and should be considered for the case of buildings erected by the project.

3. Practical training

- i. Practical training should be emphasized short of which, development of infrastructure in this country, especially that associated with land survey, building construction and physical planning will continue to be a major is a challenge.
- ii. Training should be based on modern equipment that is used in modern times.

4. Management and Social-environmental skills

These should be incorporated in technical curricula upgrade of UTC to produce an all-round graduate.

5. Continual skilling and re-tooling

Short-term refresher courses in UTC's, should be designed to make continual skilling and re-tooling of technicians possible.

Stakeholder	National Environment Management Authority (NEMA)
Officer met:	Mr. Arnold Waiswa
Designation:	Director of Monitoring and Compliance
Date of meeting (dd/mm/yy):	28/08/2014

A record of issues discussed is presented below:

1. Waste management during project implementation

- e-waste: Old ICT equipment can be an electronic waste (e-waste) challenge if improperly disposed of disposal.
- Asbestos if encountered on roofs of buildings to be renovated should be properly managed by licensed contractors.

2. Socio-environmental impacts from civil works

Civil works anticipated are minimal and campus/site-specific, impacts will be minimal but construction waste requiring disposal must be properly managed. Drilling works in walls would generate noise that would disturb teaching and learning.

3. Socio-environmental skills

Curriculum review will be a good opportunity to introduce socio-environmental and management skills in UTC's. These are necessary for today's technical graduates. For instance agriculture has several socio-environmental aspects: herbicides/pesticides use or disposal once expired, wetland drainage so technical college students should have skills to manage impacts from these aspects. Indeed the project should first train college tutors in socio-environmental and management skills so they are equipped to adequately pass these onto students.

4. Solution to society's practical problems

Solution to practical problems should be emphasized and technical training should not dwell on only "text book" theory or machine operation. Therefore internship is essential and so is industrial training.

5. Application of this ESMF towards regulatory compliance

Beneficiary colleges receiving these projects should use the ESMF to monitor their activities.

Stakeholder	Alam Group of Companies
Officer met:	Mr. Hussein Hilal
Designation:	Human Resource and Legal Manager
Date of meeting (dd/mm/yy):	30/08/2014

1. Role and categories of technicians hired by Alam Group

Technicians are highly demanded in industries because the largest staff in a typical manufacturing factory will be production-based (technicians) managed by a very small management team! So technicians are very important in industry.

The conglomerate (Alam Group) has several companies below and hires electrical, mechanical and civil technicians

- Steel Rolling Mill
- Oxygas (gas production)
- Rhino (safety wear)
- Ama Ply Ltd (Timber Products)
- Casements (Metal Fabrication)
- Kaliro Sugar
- Construction

2. Skill gaps seen in graduates training

Deficiencies noted were low practical skills and lack of familiarity with new/modern machinery used in industry today.

UTCs should have machines otherwise graduates come out without skills on equipment.

Graduates come with adequate theory but training is done raise their experience and expose them to latest machinery in real workplace environment. Alam Group also provides Industrial training to students in UTCs to expose students to real-life challenges in the workplace.

3. Skills Development Authority (SDA)

Skills Development Authority (SDA) should comprise people with practical industrial experience to provide appropriate guidance to the authority. Direction and skills development recommendations from the SDA should be market-driven able to respond to needs of the industries today.

4. Soft skills

- Supervision, management and communication skills are essential for technical college students. These should thus be part of UTC curricula.
- Health Safety and Environment (HSE) and social concepts should be part of UTC curricula, because:
 - Safety in workplace is essential and a liability to employers. Use of requisite personal protection equipment (PPE) and other safety gear should be mandatory training for all technicians.
 - Management skills are necessary in the workplace but trainees come with little or none at all!
 - Time management and report writing skills should be part of technical training in colleges.

5. Curriculum review recommendations

“Performance targets” and “Measurement of Performance” should be taught in UTC’s. “Performance management” should be part of curricula because in performance in industry today is no longer a general or collective target. Every staff has a target on their hands so key performance indicators (KPIs) are very crucial and as much a part of technicians work.

- UTC Administration should be more interactive with employers to ensure easy, quick placements for industrial training. Close engagement between UTCs and industry players is necessary

Stakeholder	Roofings Group (Roofings LTD and Roofings Rolling Mill)
Officer met:	Dr. Martin Kyeyune
Designation:	Finance & Economic Advisor
Date of meeting (dd/mm/yy):	1/9/2014

A record of issues discussed is:

1. Categories of technicians hired by the company

- a) Civil Technicians: These are hired because construction on site is done by in-house staff. They also develop products based on market needs.
- b) Mechanical Technicians: These operate machines, undertake planning and manufacture some spares.
- c) Chemical Technicians (from Mombasa Polytech): These are involved in effluent treatment, air pollution control, environment and quality assurance, chemical mix at smelting.
- d) Electrical technicians: These undertake all electric works and maintenance in the factories.

2. Skills level in graduates

Graduates hired are generally trainable. They are not yet skilled when hired fresh from college but have theoretical knowledge and can be trained. Graduates are however largely unaware of quality standards expected of products in industry e.g. if asked what standard steel a bridge must have, many would not have good answer!

3. Quality of training

A noted challenge was graduates having no exposure to modern factory equipment during their training clearly based on antiquated equipment. Technicians from Nakawa Vocational Training Institute) have exposure but students from other UTCs are not adequately exposed to modern equipment. Recommendations for this were:

- a) Equip UTCs with modern equipment. UTCs also need to survey industries identify demanded skills and train students to provide these skills.
- b) Management skills training in UTC's

Two key skills recommend were:

- Critical thinking (deficient in tech)
- Integrity

- c) Socio-environmental skills

- These should start to be taught in UTCs: Functions technical perform inextricably interact with general environment and communities. Clearly, communication and social skills are thus vital for roads/ building construction technicians and surveyors, for example.
- HSE and waste management very vital in manufacturing and construction sectors.

- d) Mode of Training

It is recommended that:

- Year One focuses on general training while in Year Two students specialize in a given sector e.g. plastics, metallurgy, etc.
- Critical thinking and integrity should be taught in Year 2 as well.

4. The greatest benefit of the proposed project

These were noted to be:

- HSE improvement (if this is taught in UTCs)
- Savings if industries can manufacture better quality products (better marketable products mean reduced waste/wastage)
- Having a skilled staff is extremely beneficial. For Roofings, technicians who are skilled in metallurgy are able to see good scrap from bad and this is important in regard to quality and money spent to buy scrap versus monetary value from it.

Stakeholder	Mukwano Group of Companies
Officer met:	Mr. Balwant Singh- General Manager Management Services Ms. Patience Agaba- Human Resources Manager
Designation:	As indicated above
Date of meeting (dd/mm/yy):	2/9/2014

Issues discussed are presented below:

1. Categories of technicians hired

Mechanical, electrical

2. Skills gaps

- Graduates are mostly theoretical and need practical training. Fortunately our company has a “Graduate Training Program” via which outstanding trainees are retained after a year’s training.
- Machines used to train students in UTCs are old and mechanical yet ones encountered in industry today are computerized. This is a great change in technology for graduates not exposed to modern equipment during college training.

3. HSE and Socio-environmental skills

Management and communication skills are very important in industry not just limited to writing and responding to emails. Respect to fellow workers and community are key skills of management. Social skills such as teamwork, innovation, initiative, responsibility and professionalism should be taught in UTCs. HSE skills are vital too. These are key gaps that need to be addressed during curricula review

4. Critical thinking

Critical thinking and sense of ownership should be taught in technical colleges. Mindset of students should change while still in technical colleges. Tutors should bring practical experiences and case studies to class so people get real life examples.

5. Recommendations on training

Specialization necessary and a graduate should have specialization in one of:

- Soap technology,
- Edible oil processing,
- Metallurgy,
- Plastic technology,
- Detergent technology,
- Boiler technology,
- Industrial Coolers, Compressors, Chillers,
- Industrial Electricians,
- Computerized Vehicle Mechanics.

Stakeholder	Ministry of Education and Sports, (Construction Management Unit)	
Officer met:	Louise Mpagi	Architectural Assistant
	Lugolobi Thaddeus	Civil Engineer
	Mukiibi Tonny	Civil Engineer
	Monday Moses	Assistant Engineering Officer
	Mukwana Ronald	Assistant Engineering Officer
	Tinkasimiire Emmanuel	Civil Engineer
Designation:	As indicated above	
Date of meeting (dd/mm/yy):	4/9/2014	

Issues discussed

1. Construction Waste Management

- Common waste streams are wood/ timber waste with sharp nails, cement bags, demolition debris, etc. Waste originates from clearing site, demolition, but often its proper management by contractors is limited by funding since this item is normally left out and in "Preliminary Items" of the budget. Disposal of uncollected waste then remains a liability of the colleges.

Recommendation: All items under contract should be funded.

- Even when provided for in budget, contractors may illegally dump waste in ungazetted places e.g. wetlands can act motivated by a need to save cost of transportation or lack of guidance from local Environmental officers.

Recommendation: Local Environmental Officers should be involved in monitoring project activities entailing waste generation to guide contractors on approved locations where they can dump waste. ESMF should provide guidance on specific issues e.g. disposal of waste including asbestos.

2. Likely Social-Environmental impacts of civil works, building construction and networking

- No significant impacts are expected because projects will usually be small and take a short-time to complete. For example trenching for ICT infrastructure can be completed and 3 days and site restored.
- There may be sexual fraternization between contractor workers and students. Leading to risk of HIV/AIDS. In one school project where workers had offices on college campus and shared some facilities, students were impregnated by contractors! Contractors sharing school campuses and facilities was henceforth stopped by the Ministry.
- There may be situations where local people request to reuse demolition rubble or waste such as wood planks and scaffolding. Would this be unacceptable?

Consultant Answer: The contractor should consult the local environmental officer for guidance whether waste demanded by local people is safe for reuse or must be disposed of. For example, while wood waste of mangles reinforcement bars might find useful and safe reuse applications, roofing waste containing asbestos must not be given to local people for reuse.

3. Occupational Health and Safety

- For storeyed buildings, some effort is made by contractors to fence site for safety of public (and students) during construction.
- Contractors need to provide PPE to workers. Safety gear is commonly provided to workers only when they know site inspection is expected but on other normal days PPE use is usually low.
- Most Ministry of Education & Sports projects are simple (e.g. one classroom block) so OHS risk is small but also these risks depend on the mode of implementation: Project implemented from the centre have EIA approval and contractors have insurances. On the contrary, projects implemented by the district are by small contractors who may not have capacity to institute similar socio-environmental controls or insure against risks.

4. Would the Ministry consider hiring a Socio- Environmental Safeguards Officer?

MOES constructs nationwide so a single person may not be able to oversee multiple projects in all over Uganda. If local government environmental officials executed their monitoring roles, an in-house Socio- Environmental officer may be redundant most of the time and may not be necessary.

5. Capacity building needs

Engineers in the Construction Management Unit desired to have socio-environmental training associated with construction projects.

6. Land take or land use change

Asked if CMU engineers foresaw a situation of conflict on land use during project implantation, the following answers were provided:

- i. Most construction projects in the Ministry are done on schools that exist and have adequate land. So issues of land take are rare.
- ii. Occasionally however school land is encroached and displacement of illegal users entails compensation by the school but teaching staff is normally just notified of impending use of the farmed land. If it is community which encroached school land, District Administration is informed to sort out the encroachment. And they usually go if people are given time to harvest their crops.

MOES position: if there is a problem on school land encroachment, the Ministry requires the school to sort it out with the trespassers. It is also noted that before MOES grants a project to a school, the school has to provide assurance that the institution has adequate unencumbered land.

UTC Bushenyi interview

Mr. Rugoogamu Edgar (Academic Registrar) **Mr. Muhairwe N. Francis** (Dean of Students) and **Ms. Tushabe Harriet** (Institutional Relational Officer)

Tuesday 02/09/2014 9.00 am – 11.00pm

Institution's Land: College has acquired a **title deed** which shows that there are about **62 acres** of land and are **in the process of acquiring a land title** for the college. The GC has given management a go ahead to process of getting a land title until it is given to the Council. The GC is the governing body of the college; it is the owner of this land. Therefore the Title will be in the name of **UTC Bushenyi Governing Council**. Has never had a title for the land. The land is in one piece; on two hills and is not fenced. However the demarcations are very clear with the boundary running along a swamp/wet land.

This land was given by the then King of Ankole Kingdom in the 1950s when the institution was first established as Kahaya Memorial Rural Training School which was opened by the then Ankole kingdom in 1956. Kahaya was one of the kings of Ankole Kingdom. At the time it was admitting graduates of P.6 who were doing shoe making, leather tanning and making pots. Later on other courses such as carpentry and joinery were introduced, brick laying and concrete practice, pottery and ceramics was also improved etc. In 1982, it was turned into Bushenyi Technical Institute and in 1984; it was turned into Uganda Technical College. However, until today, the local people around refer to the college as Kahaya Technical College.

Master Plan: The College has a master plan which is still under development/preparation. The strategic plan (for the next 10 years) is in its final stages of completion. Previously had a strategic plan for 5 years from 2007 – 2012. There are also plans for the constructions of the administration block which are have been supported by the GoU for the institution to have an administration block. The admin block plans are in their final stages because the college is about to advertise for tenders

Land Donations: There have not been any donations of land ever since the establishment of the institution.

Land Uses: About 25% of the land is under use, which is mainly for buildings only. The remaining land is enough for future developments – in fact more than enough since there is a lot of unoccupied land – part of it is used mainly as farm land by the college but with very few cows, about 10 of them grazing on a very big chunk of land (on about 20 – 30 acres) . There are also a few banana plantations (on less than one acre) for members of staff. There is also a Eucalyptus forest on about 2 acres of land which is providing the college with firewood to reduce on the costs. The outside community has not come and requested for land for gardening (vegetables and bananas) and there are not farming on the land – only staff members have small gardens, a few goats and one or two cows which graze together with college cattle. However, if staff has some cows, they have to make a contribution towards drugs for treating cows. The college is stressed when it comes to housing staff – you find a small boys quarter occupied by 2 staff members. The biggest house is two roomed.

Area of Focus: As a CoE, UTC Bushenyi will focus on manufacturing (heat transmission, boiler technicians, areas of bio-medical technology – how one can install medical equipment and manufacture some of the components that can be manufactured locally) and mechanical engineering.

Experience with Resettlement issues under Construction Developments in the Past: Most of the buildings were constructed when the institution was a rural technical school. In 1994 - 1998, there was a project funded by Oil Producing and Exporting Countries (OPEC). This was when the college got some new buildings but no old buildings were broken down, thus no issues of resettlement were experienced; it was a new area which was graded and used.

There is also a project in the offing supported by the Islamic Development Bank (IDB) but the college is not sure when the project/civil works will start. The architects and project manager of the IDB supported project visited the college two weeks ago, they have developed plans, made surveys and assessments but they keep on postponing and yet in other places, the civil works have started. In the process they identified a place where they want to put the structures. However, the IDB choice will cause a lot of stress because it will involve displacing a lot of people (staff) staying there. These concerns were raised to them; and they had not considered a resettlement plan. Management dialogued with the architects/project manager and asked them to put an element of the resettlement plan because when you have a staff that is demotivated because it has nowhere to stay, it affects so much the teaching and learning process. Management has agreed with them on this issue but it does not know whether the development partner/MoES have accepted the request which is for purposes of mitigating the stress that will be experienced by staff. Besides, their choice is not in line with the college's master plan. The college had identified a site for them but they said that it was going to be very difficult; that it was going to be very expensive for them. Therefore management does not know when the civil works for the IDB supported project will begin. They are however supposed to come back and reach a compromise. The project is going to construct a library, lecture classrooms, laboratories and workshops.

Capacity needs/gaps: lack skills in RPF/EMSF implementation. An estates officer should for instance have the capacity to monitor and supervise RPF implementation but needs skills in the area of resettlement.

There are only 2 female teaching staff members (one teaches corporate technology and the other... skills) out of 38 (all on government pay roll). The establishment for teaching staff is 48 and non-teaching is about 40. There are course units that do not need full time staff like swahili and entrepreneurship which are taught only in the second semester. There is only four of this kind and are on college pay roll. And most of the teaching staff is science based and the lecturers for swahili are arts based making it difficult for them to be full time. There are 2 PhD holders, 8 of Masters Level, 12 Degree holders and 4 or 5 below Degree level. The college produces national diploma and higher diploma holders, therefore it is producing technicians.

There is a big challenge experienced with our graduates due to training with old equipment which do not match the modern times of changed technology – for example the national diploma in architecture, the students are taught on a drawing board instead of using computers. Yes, there is a component of teaching them on computers to learn software packages like Auto cad and Arch Card but this comes at a later stage and yet they need to learn it right from the beginning. Secondly the students are taught engines in mechanical engineering but when they go to the field, there is what is called mecha-tronics – it combines mechanical with electronics and electrical, therefore they have to be retrained to be able to use certain equipment. Technological drawbacks are real challenges. Another example, the curriculum revision that was supported by the Netherlands government five years ago has already been taken by events before it is even implemented and yet it was developed with the input of the world of work. The only consolation is that when one has an idea, it is very easy to be retrained. In the old days, roads were built with tarmac, now they are using bitumen.

Potential Impacts: Positive – the place will look better and bigger in terms of the infrastructure - the buildings, roads and walkways and will attract more attention from the public; it will create a bigger space for the teaching and learning process including lecture theatres, laboratories, workshops; it will increase the intake of both government sponsored and private sponsored students; it will improve on the image of the area including the district itself saying it has a big institution in its place; it will also attract other development partners to come in and support the institution; and it will even acquire a bigger name; if you have not entered here you cannot know what is in here. The retooling and training of lecturers will provide products (graduates) of better quality because it will be hands on compared to the past where the college was producing half-baked graduates due to lack of hands on. When the college revised the curriculum to competence based training, it convinced government to provide money for practicals, which it did. Therefore the current students are better than those of the 2000s who never had practicals. Now the students have to come with tools/equipments for practicals, it is a requirement so that by the time they go for industrial training they have an idea and by the time they go to the field, they can build – because it is skills development, imparting skills to the youth. The college has also worked a lot on changing attitude because we don't want people who come here to wear ties – we train technicians where they are given technical orientation for them to understand. The college talks about gender and technical education during orientation week and ask them why women fear engineering – it brings in female technicians to talk about it and serve as models

As of close of last academic year, there were only 89 girls (14%) out of a total enrolment of 639 although the college practices affirmative action during selection – the cut off points for girls are lower than those of boys. This was purposely to bring in more girls. UTC Bushenyi was the first to consider the issue of promoting girl child education in technical schools; and now other UTCs have followed suit. And the women are excelling in water, civil and electrical engineering. Women fear mechanical engineering more than anything else but the college is labouring to change attitude. There is need to increase the population women as we get more accommodation for them because we do not encourage non-residents – sometimes the students have to work on their projects at night which is difficult for non-residents to come at night, work on their project up to 11.00pm and return home. The college wants numbers but is constrained by inadequate physical infrastructures.

Negative – It will involve breaking down some of the old historical buildings for expansion – it might be inevitable and yet the wildlife/Cultural promoters say we need to preserve for the next generation. Therefore the college might only preserve one or two buildings as souvenirs – some of these buildings are very strong. Secondly, the college is situated on a hilly place and when building on a hilly place, it involves massive movement of soil which will cause an environmental impact – such as affecting some water sources, some areas of the wetland may be covered; when earth/soil is moved to create play grounds, some trees may be destroyed; there is a very big problem of housing and yet houses may be inevitably broken down to give way for new buildings – for instance according to the institutions master plan, there is an idea where the electricity wire are the diving lines: one part is specially for accommodation/dormitories and other recreation facilities for students, another is for academics and admin and finally an area for staff housing. Therefore when it comes to developing the academic area, some housing may be destroyed. Therefore if workshops are to be built, they cannot be 200 meters away from each other when they are supposed to complement one another. This means that whatever will be in the area for workshops may have to be removed to give room for these. This

is why a resettlement plan is necessary. When things are moved or destroyed, one is stressing other areas. Some trees/forest will have to go; the banana plantation where staff have been getting banana leaves to cover the food, it is a negative impact; there might not be enough land to graze the goats; the water source down in the wetland that used to serve the institution before NWSC might disappear due to movement of earth; there is need to make embankments on the hills to control the soil; and steep slopes may be created which may not be friendly to human beings.

Mitigation Measures: The College might not avoid displacements during the WB supported project. The college must look at the few resources that it has. There should be a provision to construct some staff houses before they can be displaced. The college is constructing (by students as their practice – learning by production) some 3 two-bed roomed (about to be completed) staff houses and a semi-detached staff house (at ring beam) which could help to mitigate displacement of staff but these are not enough.

Responsibilities:

There is an establishment by government and if government is not able to fill all the gaps, then the GC fills them on a private basis. Sensitising staff/community about the changes so that they can accept change, own the project and make work easy for the project; if they are supposed to vacate the house, they should do so.

Chairperson LC II, UTC Bushenyi Parish**Mr. Basil Batigirwa (Senior Citizen – 82 yrs old)***Tuesday, 02/09/2014*

He has been the chairperson for 26 years now, an immediate neighbour of the college and he has seen the college go through the various developments. The land on which the college sits had people living on it before the college but time came when people fell sick and died and the community thought there was something wrong with the place, so they all left the area. When the college started there were no people living on the land.

About the USDP: He has also heard rumours about some developments that are coming to the college but he has not been involved thus had no keen interest. That the college is going to get new buildings and other developments.

Community utilizing college land: There are none doing this; not even digging

Benefits/Positive Impacts: The buildings will attract the community and encourage them to enrol their children who will equip the youth with skills necessary for self-employment or world of work and develop their area. It will enable the people around to get job opportunities such as for casual labours and skilled workers. When the enrolment increases, it will create a bigger market for food – people around will bring their food and sell to students increasing their incomes; the image of the college will improve and put the area on the world map.

Negative impacts: He could not see any negative impact because the college has its own land, water, electricity and everything is inside. He could not therefore see anything negative that the project could cause to the community. HIV/AIDS risks due influx or people loaded with cash. Environment issues

Mitigation measures: Mobilize the community and Convene meetings with them and contractors to sensitize them on the risks. When one tree is cut, three trees should be planted. The sand and murrum pits should be filled after creating them. The college land is surrounded by a swamp/wetland, therefore no immediate effects to the community during construction.

Recommendations: Need to accommodate the workers within the college and if this is not possible then they should rent outside. They can construct for them houses at a different site for the workers far from the students. Meetings should be held with both the workers and community. Otherwise they are ready for the project.

DCDO, Bushenyi District Local Government**Mr. Basil Muhanguzi***Tuesday, 02/09/2014 at 2.00pm – 2.30pm*

The institution serves youths (18 – 30 years) and when it becomes a CoE, it implies that more youths will be enrolled to acquire skills that will enable them to create their own employment. This will employ many of them (self-employment and income generation) and pull them out of redundancy and playing pool. The surrounding community might also benefit from being employed at the institution when it grows which will increase household incomes.

Experience with Construction Projects: There is a programme called Community Agricultural Construction Programme (CAGRIP) where the LG is constructing roads in one of its three new sub-counties. The old roads are being expanded while new ones are opened and in both cases, people's land is affected. The programme does not have an element of compensation but the CD office is responsible for mobilising the community to accept the developments. There have been challenges but people have come to accept the project and allowed the roads because these were areas which were hard to reach and new sub-counties. People lost their banana plantations, houses but they are still appreciating – it depends on the mobilisation and preparation taken before hand to accept the project. There was no compensation at all; and yet some people removed their houses without compensation – they accepted without coercion. For instance there is a sub county with tea plantations but they have allowed their tea plantation to be destroyed. Infrastructure management committees were formed at each of the 3 SCs which are assisting the DCDO to mobilise people. The community members are involved in casual work like digging trenches and installing culverts to benefit from the project which increases acceptability. The committees for the modern markets and agro-processing work will be formed when the construction work is about to commence.

When Bushenyi was selected to benefit from the programme, MoLG officials, the contractors and the District Local Council sat together and discussed the project and the district governing council understood that there was no compensation. So the district embarked on mobilising and sensitising the community – and made them understand that it was for the benefit of the community because the programme is not for constructing only roads but also setting up new markets and agro-processing plants like coffee factory plants – it is up to the sub-counties to agree where to put the market or factory plant – there is no compensation and people have accepted as they look forward to the benefits that will be accrued from the project. The new sub counties do not have markets but the SC have land for the markets.

There is a road being constructed under UNRA from Ishaka to Ntungamo district; and for the people displaced or lost lands are being compensated. The challenge is that people on the UNRA projects are compensated and the people on the CAGRIP project are not compensated – therefore a lot of effort had to be put in to explain the differences in the two projects; and people accepted. All CD office did for the UNRA project was to mobilise people and assess those who would be affected and stopped there. A government valuer came, visited the affected households and valued the loss. The compensation etc. The department was not involved; it was the works department that spearheaded the compensations.

HIV/AIDS and related issues is a concern – whenever there are putting up such infrastructures, a number of people come from different areas and no one knows their sero status – what the district does is to establish mobile camps where people are sensitized about HIV/AIDS especially looking at preventive measures – if they cannot avoid it, let them use preventive measures. Clinics/Health units were established at these camps; well stocked with condoms; and do offer free services.

DCDO Responsibilities: Mobilization and sensitization; consideration of gender issues to involve also women/girls in construction or related work if it is not too heavy for women so that they can get some incomes.

Department's Capacity: This is a challenge because at the district, there are supposed to be 4 officers; but currently only 2 are filled: the DCDO and a senior probation officer. There are 12 lower LGs i.e. 9 sub counties and 3 divisions of the municipality. The 9 sub counties have 3 substantive CDOs and the rest are acting as CDOs. For the divisions, there are 2 substantive CDOs. The establishment is a DCDO, senior CDO, senior probation officer and senior labour officer. And at each sub-county, it is supposed to be one CDO (graduate) and one ACDO (diploma). The challenge is the wage bill; however it was promised that this financial year some recruitment will be done to fill the sub counties without substantive CDOs. The municipality is semi-autonomous although we have programmes that cut across the district and municipality. Logistically, it is a challenge because it is not adequate. Other logistics such as computers, we have. There is no vehicle but there are 4 motorcycles of which only two are sound. The department needs to be oriented/trained on resettlement/compensation issues. Budget, non wage is 600M. Youth livelihood programme is new implemented by MOGSD which is supporting the dept with 352N per year. Only 5M comes from the centre i.e. 2m for gender mainstreaming; 2m for labour related activities and 1m for HIV/AIDS. Use hired motorcycles

with some facilitation for fuel and safari day allowance; using a multi-sectoral approach – would go for instance with NAADS staff on their motorcycles to juggle around the incapacity; also borrows from other departments if free and fuels to the field; and if all this is not possible, we drive our own small cars

Recommendations: Training staff in resettlement related issues; improve financial support in terms of recurrent expenditure

Bukalasa Agricultural Training College Interview

Ms. Christine Anyait (Principal) and Ms. Mirembe Sarah K. (Warden)

Thursday 28/08/2014 11am – 12.30pm

Institutions Land: It is about 400 acres altogether separated by the main road going to Wobulenzi. The land on one side of the road is about 299 acres and the other is 100 acres. There is a land title for the 299 acres of land. Due to problems experienced by the institution in the past, the title for the 100 acres seems to have gotten lost. Therefore the Principal contacted the chairperson of the Uganda Land Commission who told her that there is a land title already and all they have to do is get a certified copy of the land title since they lost the original. ULC cleared the institution to get a copy but each time the principal goes to get it, she hits a snag. In a nutshell both pieces of land have titles. The titles are in the name of the **Governor of Uganda** by then holding it in trust in the name of the college – that is in the 1931. The college tried to change the land title into its name but they were informed that it is the Uganda Land Commission which is vested with the powers of handling all government land and said that they no longer give it in the names of colleges because when they do that, principals or management of some institutions decide to sell the institutions land. Therefore the ULC keeps the titles safe and whenever the institutions want, they are given copies. The **land is not fenced** but the demarcations are clear and recently the boundaries were opened.

All the land is under use. The other side of the road (100 acres) is used for cropping and students demonstrations, also collaborations with NARO for their variety multiplication, and a few pieces under fallow but still under use. The land is available; it only requires reallocation when a project comes. Management needs to sit and decide what to put where when the project informs them what will be offered.

Land uses: There is cropping (food production), animal grazing (paddocks), and then buildings. These are the main land uses. The buildings are scattered; therefore difficult to estimate the proportion of land covered by buildings. The district land office is also on the institutions land. The issue is – we failed to deal with these vendors – they are many and they sell to people who are hungry, who come to the land office. The land offices' existence on the institutions land is historical – they used to be on this land since time immemorial inside the college and moved where they are now in the 1950s. The land on which the District land office is now their land although it is on the institution's paddock – the land is part of the 400 acres and is about less than one acre – difficult to chase them since they were found here – after all both of them are government and there is no way the College can chase another government – and the land office says that the institution is in its district; under the district, how can it chase them!

The college doesn't know yet what the project wants to construct, otherwise we would identify the areas for the constructions but there is plenty of land and we are proposing that since we are an agricultural institution, we should have storied buildings so that we save most of land for other land uses especially agriculture as students need land for demonstrations and research and food production. This is what we recommended.

We used to have some community members coming on the colleges land – the army had also come to occupy the other side but we put up a spirited fight and it culminated into news in the press, “the army told to keep off Bukalasa's land” – this was in January 2012 after the war had been won. General Col. Wamala visited the college over the issue and there was a heated debate! But when community members come on the land, the institution is able to get them off now that it has a title. However when community members around ask us for some piece of land to cultivate and grow food, we consider them as our neighbours and they are more friendly when they are allowed to dig. So some of them are allowed to cultivate because if they are not allowed they steal the institutions food when they are hungry – the institution has a good social corporate responsibility policy. A few of them are growing crops on the institutions land – some of them along the institutions roads – we allow them because it is difficult for the institution to keep the grass along the roads low all the time.

Grazing has been discouraged for the community members but sometimes they sneak and graze on the land. And when get hold of them grazing, they are fined 50.000/- just to try and bar them. And along the road near the district land office, there are some vendors who bring food to sell to people who come to solve their land issues.

Master Plan: There is no master plan for the institution; there is need to develop one; we wish the project could identify a consultant who could help in preparing a master plan for the institution.

Experience with Construction Developments in the Past: NUFFIC (The Netherlands) constructed the green house for horticulture agriculture; and DANIDA renovated all the buildings (except the labour line – staff houses) around 2003 to 2005 –

they put new roofs and repainted the wall. Neither the principal nor the warden was around when these construction/renovation activities took place, so unable to share anything regarding this.

Potential Impacts: Positive - Job opportunities to the youth; increase on the equipment and all the archaic equipment will be removed and new relevant ones brought, better infrastructure, buildings, office furniture, computers, better laboratories, better farms because a skills based farm for demonstration is expected as well as a business farm (commercial) if the project gives a little input, the institution is able to do business out of the farm; with better infrastructure enrolment will increase which also benefits the community because they will see that Bukalasa is changing – something good is happening – thus many students will be attracted to the institution – they have been looking at the college and saying it has been like that since the 1950s up to 2000s but now is changing – something good is happening there. Some community members would ask what their children were coming to learn from such an institution. They will associate the new buildings etc with new and better ideas. Generally the impact will be great – positive impact to the community as a whole. Staff will have better accommodation since some of them commute which lowers performance – performance will improve as a result because they will commit most of their time to the college; retooling the lectures will improve their quality **Negative** – degrade the environment by cutting down the trees; disturbance of the peace and studies of the students; some sort of disorganization generally; the danger we may have is that when the lecturers quality improves through training they may be taken by other institutions that pay better but this can be mitigated by motivating them – there must be a solution to this to retain the staff – with all the skills they will have attained with little pay, they may decide to go; also if all staff are not trained, those left out may want to sabotage the project

Reallocation of land for the project: Reallocating land for buildings – there is enough space – a lot of it – this side is rocky that is why the buildings were chosen to be – it does not need reallocating especially if they will be storied buildings so that the prime land is left for agriculture. Institution does not foresee displacement of any structures.

Experience with Resettlement issues: The institutions land is big and it belongs to the institution, no body owns anything on the land. For instance when one building was being renovated and people were told to move to another, they had nothing to say but to comply – otherwise it is an issue because it disturbs a bit to have ones things shifted somewhere to do the renovation and come back

Responsibilities: seeking the best possible way of moving people from one place to another to enable renovation; deal with the stubborn ones in a more careful manner through convincing;

Capacity needs/gaps: There is need for an environmental officer/focal person to help the institution; the institution has not benefitted from the district environment office because it has never gone there for help and they do not come around. Training on RPF/RAP issues. The college is overstretched in terms of staff gaps - there are only 38 teachers (19 on government and 19 on college pay roll). They have lecturers from diploma up to PhD but compared to the number of students which is 1300, the ratio is not bad. The requirement is 1 teacher to 15 students since it is practical's based if the practicals are to be taught very well. Teaching aid is also lacking.

Chairperson LC II, Bukalasa Parish**Mr. Oyo Martin***Thursday, 28/08/2014*

He is **also a staff member** of Bukalasa ATC since 1992 working as a poultry attendant. The good thing about Bukalasa College is that it allows the community around to utilise its land for cultivation; they also allow the community to rear animals which animals are sold for incomes to the community. As staff, we are given small plots on which to farm so that we can supplement our incomes. Most staff members both teaching and non-teaching staff all do gardening. The community around the college also benefit from water – they connected water from the college and have taps with meters in their compounds. When a project like that comes to an area, there are people it affects positively and some negatively. People may get employment, both staff and outside community. Some staff members have adult children who live with them who might be employed. If constructions take place where some staff members have gardens, they will definitely be affected negatively. If the project comes with its construction workers (especially for casual labour); it will hurt many youths/people. However we welcome the project because it will bring development.

DANIDA project (renovations and reroofing) employed local people and they were happy because they benefited from the project. The contractor called the community within and outside the college to come and work. Children of staff members were employed. They started the renovations with the children's centre was the chairperson was using as a canteen, so he relocated to his house and was told to return after renovation. The renovation of classrooms and dormitories were undertaken during holidays when students were away. Buildings that were not used by students during school days were renovated when students were around.

Mitigation measures: Employ local people especially for casual labour; avoid school days where possible and utilise the long holiday period. The contractor should put a sign post informing people that they are prohibited from the site unless they are workers or have business there. Also inform and sensitise students and the community about the project to prepare them. Promiscuity was rampant at that time; marriages broke, some women could not listen to their husbands anymore etc. – put a sign post to minimise interactions

UTC Lira Interview

Mr. Tarwana Nathan (Principal), **Mr. Omwa Michael** (D. Principal), **Mr. Abbas Nabwas** (IRO) and **Mr. Angela Geoffrey** (Academic Registrar)

Friday 29/08/2014 10am – 12.10pm

Institution's Land

The college has about **93 acres** of land. The land is **titled** and owned by the Governing Council (GC) as the governors of the college on behalf of the MoES. The land title was issued 3 years ago and is in the names of the GC. According to the College structure, the MoES delegates its powers to the GC, which is the policy organ of the institution, and then there is the management of the institution spearheaded by the principal and its officials. The land is free of any encumbrances, therefore no hiccups are anticipated in terms of the ownership of land – the land is fully owned by the College.

The land is in **one piece**. Right now it is being fenced with a chain link reinforced by metal angle bars under the on-going IDB project and so far 80% has been fenced, the remaining 20% is expected to be completed in two weeks time. The land title was given to the IDB project, so it was very easy for them to establish the boundaries before they started fencing. They worked with the district surveyor and the work is almost complete, it is a 3 km piece of land.

The **proportion** of the land under use currently is about **50%** (a half) and the rest is being utilised for gardening. The various land uses currently are houses – administration blocks, classrooms, workshops, dormitories/halls of residence, laboratories, dining hall and kitchen, library, Guild Canteen and sports and recreational facilities, football pitch, staff quarters, a primary school and kindergarten. Most of these facilities are not in a very good state as you might have observed – most of the administration block, workshops and laboratories are roofed with asbestos which is no longer recommended – it is not a desired situation that the institution is in but hopefully these can be addressed. The remaining 50% of the land is being used by only staff for gardening and rearing a few chickens in order to supplement their incomes, which is not the purpose of the land anyway. They are using it temporarily but in case the institution needs it, it can get it back. There are no encroachers and the outside community does not utilise the land for any other activity.

Land donations: There has not been any land donation in recent years except in the beginning when the UTC started in the mid 1940s, all the 93 acres were donated by the community at once and they are not fighting to have it back, it was a permanent donation and they are happy that the institution is on their land. The institution is in Lira Municipality and the District Land Board (DLB) officially allocated/gazetted the land for the development of the institution. When the DLB gazetted the land for development it was later surveyed and titled.

Master Plan: When the new Principal came in about one and half years ago, the GC had talked of developing a master plan for the college. However, previously under the Netherlands NUFFIC programme, the college developed a strategic plan which was for 2011 to 2015 but later it was realised that the plan was erroneous. We had a strategic plan without a master plan. It was recommended that we start with a master plan, unfortunately the previous GC left before it was developed. The current GC has talked about it and is in the process of developing a master plan. The current buildings were constructed when the institution started as a technical school in 1948; later in 1973 it was upgraded to a technical institute with some new buildings added. In 1983 the institution got College status without any new buildings being added. The current structures are for a technical institute much as it is a college now. The new structures (6 classrooms, a civil laboratory, 2 workshops, a library and resource centre, and a twin hostel of 224 students' capacity) under construction now with support from the IDB project are a drop in the ocean compared to the needs of the institution. They are the only additional buildings since the institution attained a college status. It is expected that with the Skilling Uganda Strategy, the UTC will have about 2000 students in the next five years. Therefore the gap is still big to meet the needs.

Area of Focus for the Project: UTC Lira will focus on construction. When UTC Lira started, it was to serve World War II veterans and it was largely for construction (civil works). With this background, the institution prefers to go by its history and focus on construction. There is no officer in the institution directly charged with dealing with social or environmental issues. The CDOs and Environment officers at the Municipal Council are responsible for these issues at the institution who monitor what goes on at the sites and we also monitor

Positive Impacts: The institution will expand in terms of more enrolment of students, more facilities, quality of learning, modern equipments, the quality of the staff would also improve, better capacity of the professional development of the staff, ownership of the college by the community will also improve - when an institution like this has very poor structures, even the community can be tempted to give some chunk of land to an investor to put up a shopping mall because they will start valuing a shopping mall

more than the institution – you cannot have asbestos and the investor is promising a five storied shopping mall, therefore the value of the college will improve after the project, which will enhance local ownership of the college. It will address the main goal of skilling Uganda by providing more manpower and equipping more youths with relevant skills to enable them live independently – increased access to skills by the youth to become job creators instead of looking for jobs. Job opportunities will be created during the constructions and after will be a bigger market for goods and services due to an increased enrolment. Those producing or selling beans, maize, rice, tomatoes, and firewood (though this has an environmental negative impact) but generally they will have better chances of selling their products. Those with children will have an opportunity of access to put their children in the institution.

Social/Displacement/Resettlement issues (Negative Impacts): The College identified and proposed a suitable site for the IDB project but due to some financial constraints they chose the playground which did not require levelling (something which was hidden but instead said that since the classrooms are located near the football pitch, it was better to have classrooms nearby – little did the college know that they wanted to spend less by avoiding levelling; they also said that they didn't want to scatter the buildings but leave more land for future developments). Thus the place where the majority of the IDB project's buildings are being constructed was initially a playground. When they zeroed on the sports field and could not meet our conditions, we could not chase them away because of our many needs – people would really think that we are not doing something for the community. Whereas the environmental and social assessment done must have considered the displacement issues, there is absolutely no component in the IDB project to replace the play/football ground. There has not been any deliberate effort to replace the playground. This is where 4 – 4 storied buildings are being erected. This is an issue which raised great concerns among all stakeholders – but according to their declared scope of work there is no plan to replace the playground. Initially, the college had placed certain conditions and requirements, one of them to replace the playground but for some reasons – e.g. the bidders quoted highly and ended up scrapping off the replacement of the football pitch from their scope of work.

Given the experience of the IDB project, at the time of needs assessment, the consultants came up with the ground plan whereby they declared which building will be put at which site, later there were last minute alterations of some of the buildings. These alterations encroached on some of the gardens of some members of staff – a lot of arguments came up, the IDB wanted to commit itself to compensate but later the staff members were not compensated. Therefore when the WB supported project starts, there should be **deliberate plans to compensate** those affected and/or replace affected structures, especially where staff members are gardening as a supplement for their survival. Secondly is about the **displacement of manpower** (social impact), e.g. when Kyambogo was elevated to a university status, a number of staff members lost their jobs. It was resolved that all staff would be absorbed and given a time lag of five years to upgrade. Therefore this project should have a deliberate plan to train the available staff to suit into the proposed CoE.

In a situation of expansion, the planners should start with the providers of national services like of electricity, water and sanitation, telephone, internet etc. so that it can **cater for concurrent expansion**. When new structures are built, one is expanding the number of people; therefore the capacity to handle the increased number of people and usage should subsequently correspond to the expected increment. For example, increased population would require the sewerage and sanitation system of the college to be connected to NWSC – it should be designed to cater for this. The college is not connected to a sewer line, the septic tanks constructed over 50 years ago are for small usage and can no longer adequately serve the college as they fill up very fast and a CoE should be connected to a sewer line. The same for electricity, there might be a need for a bigger transformer – therefore, there must be liaison with these providers. As a result, the **project should not displace the available capacity and have no plans for replacement** – the experience with the IDB project is that the current transformer is small and thus needs a bigger one to meet the soon future energy requirements of the institution. And yet between the transformer and the service provider which is in the municipality, it will be the work of government for the electrical connection. Therefore it will not be effective without these connections being catered for.

The project may **disrupt or interfere with college activities** for instance in a situation where a classroom is being renovated and the students are in session and therefore have to study under a tree or somewhere else; or rehabilitating an administration block and the principal has to commute from a hotel to manage the institution – this is an area where we need to plan very well for alternatives to avoid or minimise such disruption of college activities.

The **female students may not benefit equally** from the project as their counterparts given the experience with the IDB project. Women need privacy and security. However, given their small number (about 50) in the college, they cannot occupy one of the twin hostels because they will not fill it (its capacity is 112) and instead the college plans to have both dormitories for boys. The current girls' accommodation is better than that of boys and is friendly but they do not even fill it. Besides, even if the girls were allowed to have one; they will not have the required privacy and security since the twin dormitories face each other. It is as if the IDB project caters for only boys and yet the college wants women on board as well since they excel when given the opportunity.

However the college has intervened by using its resources and students labour and is constructing a hostel for girls. The institution has also introduced new courses within its mandate and introduced courses to attract girls such as ICT, therefore in the next five years; the enrolment for girls will increase. But for the mainstream engineering subjects, there is a lot to be done in secondary schools.

According to college enrolment, **about 90% are male**, which is already a social problem because in the government policy, at worst 30% should be female. It was realised that the problem is not with the institution but with the lower levels (primary and secondary schools) because the institution's policy is very gender friendly, any female candidate who scores the minimum, that is, one principal pass in mathematics or physics is admitted always. The teaching of sciences and mathematics is not gender sensitive at primary and secondary schools, the girls are not encouraged to take up science subjects – most of the dropout girls tend to join UCCs and nursing schools meaning that somewhere along the education ladder, there is a problem – hope the project could assist in addressing the problem.

In the event that existing structures are demolished to pave way for new ones, we prefer that the old **ones first get renovated** because the walls are still strong e.g. a tree fell on one of the buildings but the walls did not show any sign of being hurt – it did not crack at all in spite of a very heavy tree falling on top, it only the roofing timber that broke because of the age. This is to demonstrate that the existing structures do not need demolition but renovation. We would prefer a situation where we can maximise the available land but the issue with contractors is that when it is a storied building, they quote twice as much – there is something hidden in contractors wanting storied structures. It would be good to have storied buildings to save on space because if the institution becomes a CoE, the next five years may see things happening very first with expansions and the land becomes not enough. Some structures may need renovation but if some require demolition, I would prefer demolishing them and giving room for new ones, therefore we should be going upwards so that we can safeguard some land for future developments.

The construction for the IDB project takes place both during holidays and when the college is open. The social issues could do with having many construction workers in the compound who have cash and they could have **secrete arrangements with the girls and involve them in love relationships**, this cannot be avoided but a provision was put that since the construction sites are in two places, let the movements between the two places be along the external road and not passing through the busy place.

The contractors came with their own workers like the foremen, managers but also recruited from the local workers around. The only challenge they faced was that the skilled workers around are more expensive – they were demanding a lot more than their own.

Environmental Issues: The IDB project also had an environmental and social management component. Before the project started, they came and assessed which trees are being affected by the project sites and; what other environmental impacts and concerns that may arise during implementation. Most of their concerns were about how the environment would be affected by the civil works – what trees would be affected and how they were going to replace them, noise pollution. However, since implementation started, the project has not made efforts to replace some of the trees that were felled to pave way for the project – the constructions are going on. We have not observed them addressing these issues. They have partly addressed noise pollution by controlling the trucks movements – they are using an existing route which does not go through the busy college area.

Waste management: the waste timber is used as wood fuel; there is still heaps of soil around the dormitories which they will use for landscaping so that it does not affect the compound. In their environmental framework, they said that they would address these issues of heaps of soils and cut trees under landscaping of the affected areas, i.e. planting grass and trees.

Mitigation Measures: The institution should try as much as possible to avoid adverse impacts by identifying sites with the least negative impacts; then replace a tree whenever one is cut; it will also encourage students to actively participate in protecting the environment. The noise level has been structured very well by the IDB project because most of the noise comes from the concrete mixing plant which they did during the holidays and the trucks use an external route. The two sites were fenced off with iron sheets and both have a gate with a security guard. The idea was to limit noise but also to guard against interactions with students/community. We expect the WB project to do the same. For the renovations we shall mitigate the above impacts by having it done during the long vacation of June, July and August. In addition, for the classrooms, new ones could be built first and fenced off, then when they are completed, students can be shifted there and free the old ones for refurbishment. The love relationships between the contractors and female students will be minimised by ensuring that the contractors leave at 7pm; have ensured that the contractors are not accommodated at the college; and that they appear in their overalls at all times so that they are easily identified; and the sites have been hooded off – is not easy for a staff or student to access the sites unless s/he goes through the gate, signs and is allowed in. The institution informed the students about the project but did not sensitise them on social related issues. The construction's project visits for the students as part of their training to the sites is organised by a staff who takes them. Every semester, the institution holds health talks where people from AIDS Information Centre (AIC), family

planning and other technical people on health are invited to talk to students about HIV/AIDS. Therefore the students are aware of the risks and those responding to the health talks are aware of the risks of having relationships with the workers. There should be a deliberate effort by the government to revise its remuneration scale and other benefits for staff members otherwise, they will go elsewhere after training and defeat the purpose of the project when they find their way in S. Sudan, Rwanda, Kenya etc. Retention of lecturers might be a challenge if the terms are not equally improved. Naturally one will look at where it is more lucrative. Government should also look at improving other benefits such as housing, utilities which might keep the staff around. The institution is **availing accommodation** to staff, **giving them some incentives** to supplement their salaries and give them **opportunities for further studies** Also with available workshops, we are implementing some small income generating activities limited as the facilities are right now, the production unit is bringing in some incomes. However upon acquiring the status of CoE, we expect to use the modern equipment to **enhance the production line to bring in more income** so that we can supplement government's salary for staff. The institution is also **introducing commercial programmes** such as short courses in ICT which will directly put some more money in the staff members' pockets. However, all this depends on availability of more and modern equipment

Responsibilities and Capacity Gaps:

1. Identify areas that will be affected through the area land board committee to inform those people who are using the affected land so that they vacate in time for the project to commence – no capacity gap here
2. To identify areas to monitor e.g. the trees that will be cut; the excavations that will be made; existing facilities that will be either demolished or affected – the Estates Officer and Farm Manager will be responsible for this except where more is demanded by the Bank beyond their capacity that may require retooling to ensure they carry out their responsibilities effectively
3. Establish a team that can go to schools and mentor especially the girls and do career guidance – there is need for capacity building in this area
4. Monitor the project
5. Training in RPF/RAP/Resettlement issues
6. According to the current staff establishment to run the offered programmes, out of the 40 required staff/lecturers, there are 12 on government pay role and 28 on private. The existing gap of 28 is being met locally by the institution through income generating activities. The problem with this is that the available income is being used to hire staff that government should be paying limiting the funds to adequately motivate staff by giving them some incentives. The college offers only diplomas – national diploma and national higher diploma

Recommendations/Way Forward: The principal is going to commit the GC to **immediately embark on preparing a Master Plan** and he promised to have the GC planning and development committee meeting in about two weeks' time after which a full governing council meeting will be convened of which the preparation of a master plan will be at the centre of the meeting given its importance for future developments.

The College land belongs to the GC, and to avoid past bad experiences, **the college management should make an assessment** of the possible sites for the project beforehand so that it can take responsibility to sensitise and caution staff members/land users and inform them that the identified sites are for the project and therefore they should not grow crops on them and expect to be compensated – and make it a business. When staff members join the institution, it is purposely to teach and when they are given land to cultivate, it is temporal because the land is idle. However, when a project comes or an institution's need for the land arises, it overrules all our private activities on it. Therefore the land users need to be alerted in advance and told that the identified sites are needed for the project and should not cultivate on them expecting to be compensated – the project overrules these activities. The relevant stakeholders in the identification of the sites should **undertake the site identification** soon.

Future projects should **employ more local people** and get some of the local materials from the community if they meet the specifications. The cement was got from Tororo and the sand from Kafu.

There is need for an **environmental committee** among the students and an **environmental focal person** among the staff who should examine environmental issues and address them.

It is recommended that **UTC Lira should focus on construction** as its core area for the project – this is because it is the only institution at this level in the whole of Northern and West Nile region and; northern region needs construction more than any other region because of the prolonged period of war - people were not having much construction, both buildings and roads – the other reason is that we are nearest to Southern Sudan and we currently have a big demand to provide manpower. We are currently producing for export, it is not a secret, and the institution's graduates find jobs in S. Sudan. Therefore, relatively we

have a better advantage with construction than any other region. The northern is much wider; its road network needs more road constructors than any region and thus has a big duty to fill the entire region with technical people for construction.

The project **should retrain available staff/people** of the institution – it should start with these first and then fill the gaps with new ones – this must be emphasized. There should be a deliberate plan for filling in the existing and potential staff gaps when it eventually becomes a CoE.

The project should **provide the latest equipment** because the institution is having problems with their graduates who get to the world of work and meet modern equipment for the first time which becomes challenging to learn on the job how to use them – e.g. what the institution has got is manual and the industry has got computerized – therefore what they learn in college becomes very difficult to implement or irrelevant in the industry – we need a situation where the graduate goes to the world of work implements what s/he learnt without additional training.

Principal Community Development Officer, Municipal Council/Acting District Community Development Officer, Lira District

Ms. Anono Christine

Friday, 29/08/2014 7.00 pm – 9.00 pm

The community needs to be informed and sensitised about the project, its importance and benefits so that they can understand it very well. And it is the duty of the Community development office to mobilise and talk to these people, but we have not been involved. There are people who do petty business there which could be their source of livelihoods and therefore they need to be taken care of. The Community Based Services Department was not involved at all in the Islamic Development Bank (IDB) project going on at UTC Lira but heard about many people complaining about the UTC/Project on radio such as being pushed away from the road reserves by fencing but I didn't know whether they were complaining about that project. Some people were talking about being displaced and yet they were earning their livelihoods there.

Experience with other constructions/resettlement issues: There was a construction project implemented in the municipality called USMID, I think that this project was funded by the World Bank. One of the ACDO was involved in the project right from the beginning and it didn't have many problems. The ACDO mobilized the people and talked to them about the project, informed those who would be adversely affected by the project for instance, those who had permanent buildings and kiosks in the road reserves or those who were utilizing the road reserves in any other way as a source of livelihoods. Those with Kiosks were told peacefully to relocate by moving a bit away from the road and were not compensated. Those with permanent buildings were promised to be compensated. These people have not been compensated yet because the municipality does not have enough resources but certainly they will be compensated in future. There were Grievance Redress Committees that registered the complaints from the community members; there was also a Technical Planning Committee (TPC).

Another time was when the Uganda National Roads Authority (UNRA) requested the department to carry out a research to seek the community's views on displacement and resettlement which they did. Other than undertaking this exercise, the CDOs do not how resettlement is done and the related issues.

Responsibilities of the DCDO: Mobilization and sensitization on gender issues to the community members and contractors so that women can also be involved and benefit; on the community's relationship with the new people who will have come in to guard against HIV/AIDS.

Capacity Needs/Gaps: According to the approved Municipal Council structure for the CBS department, it lacks only one staff. However, there is a loophole in the structure in that there are 4 divisions in the Municipality and each division is supposed to have an ACDO of which there are only 2 available necessitating the recruitment of 2 more. On the other hand the district structure requires 18 staff for the CBS department, that is, 9 CDOs and 9 ACDOs. Of these, there are only 6 CDOs and 5 ACDOs. There is no substantial DCDO, no Senior CDO – gender and community development; no Senior CDO – social rehabilitation. There is only a senior labour officer but no Labour officer. Also a senior probation officer is available. The department had 6 motorcycles provided by a development partner but they are all down and yet the department lacks a vehicle. The budget for the CBS department in the district is 6 Million only per year while the Municipality is only 4 Million; and the non-wage budget 3 Million and 1.2 Million per year for the district and municipality respectively.

How the department deals with the gaps: The district gets support from development partners such as Plan Uganda, Actionaid International, Facilitation for Peace and Development (FAPAD) and AVSI. These sometimes provide the department with fuel and they borrow motorcycles or vehicles to use.

Potential Impacts: **Positive Impacts** - The project will provide **job opportunities** for both skilled and unskilled people. The youths might get an opportunity to work in construction. In addition, services like providing food, accommodation and medical for the workers may boost these businesses. Therefore business might boom in the community, district and region as a whole. This could be the opportunity to put Lira on the World map when UTC Lira is upgraded to a CoE. The UTC does not only serve the community in Lira but all in the region. The CoE may attract students from South Sudan since most of the graduates are exported to S. Sudan, thus making it an international institution. It will also create **career development opportunities** for the lecturers since they will be, exposed, trained and upgraded to meet the new standards of the institution, thus providing high quality instructors. Furthermore the **quality of the students** graduating from the institution will be greatly improved since they will be trained on modern equipment. **Negative impacts** – Some community members who could be getting their source of livelihoods in the areas that may be taken up for the constructions may be **displaced** and therefore they need to be considered; **HIV/AIDS** is always a concern whenever many new people come to an area especially if their liquidity is high as is the case with

many constructions. When constructions take place, it brings in many people, therefore the community needs to be sensitized about HIV/AIDS so that it can guard itself against HIV/AIDS;

Recommendations: The CBS department should be brought on board once the project starts to mobilize and sensitize the community and avoid or minimise the issues that arose in the community with the ADB project. Gender issues need to be considered and avoid stereotyping because in the construction industry now, even women work; therefore women should also be engaged to join the construction labour force so that they can also earn a living from the construction/civil works. Government should increase the grants for community mobilization, that is, funds for fuel, office facilities and transport. Without adequate facilitation, the department is unable to carry out its duties effectively. The CDOs require training on resettlement issues and the RPF/RAPs

Chairperson LC I, UTC Lira Village**Ms. Ekwang Semmy***Friday, 29/08/2014: 12.15 – 1.00 pm*

I live and work here as a primary teacher at Aelia olet primary school. It is a school which was founded by members of staff of UTC Lira in 1994. It is within and on the land of the UTC. It was also covered in the fencing of the IDB project; it is also part of the UTC village. I believe the civil works will be within the college. It might affect the neighbouring community but the UTC community will benefit out of it. The community was not happy about the fencing, some were complaining that why were they being left outside – I don't know whether they wanted to be taken inside UTC. Some people were used to coming in the UTC to loiter anyhow – some people would come pick some things from the village – petty thieves. The mechanics and other people selling on the road sides/road reserves neighbouring the primary school, they did not have toilets, so they would come and utilise the school's toilets. Therefore fencing denied them toilets which made them unhappy. Secondly the people around used to come here to the playground, including children without any restriction, so this also made them unhappy about fencing – they felt barred from these services. The UTC has a big fence while the primary has a small gate. Also the people selling goods in the road reserve were pushed a bit further towards the road and even the roads authority will not allow them to put their merchandise.

Even on the other side of the border with ... primary school which borders with the UTC, they complained that the UTC did not contact them when they were processing the title; they were not happy with the demarcations – it was a big problem. They complained and even went to court – that the college encroached onto their land. It happened even before the new principal came – they processed the land title without calling the community on the other side – sometimes I don't blame them but the college committee – they would contact them when processing the title and asked them if they agree to the boundaries but they only realized after they had got the title which was a big problem. The PS is also government, it is a big school with a big land and i don't know where they ended with their court case. Another community was also demanding that the UTC leaves for them a road (a small path) instead of fencing it. Then on the other side, people are complaining a lot that the UTC should leave some space for a stage for taxis. That the road reserve is too small to create a proper stage.

The rest of the land, people are just digging, there is enough land – some people from outside are also allowed to come and dig, especially if one has good public relations with the college – the staff of the UTC do not like digging, some do not have their wives here, so the portion given to them is sometimes left there or they give to their relatives who are staying outside the UTC to come and dig. The LC I chairperson also has a garden. The crops grown are: cassava (this is always yielding very well), ground nuts (these yielded very well this year, at least each farmer harvested 3 sacks), bananas, and millet.

The constructions may create issues like destroying people's gardens if buildings stretch up to the gardens. It happened with the IDB project - the store keeper of UTC had a garden with cassava which was destroyed to pave way for the construction of the dispensary and dormitories – the store keeper demanded for some 30 million for compensation but the garden was not big – later he decided to drop the idea – other people were also affected by the constructions and fence, they complained – but people recommended that they should not be compensated. The contractors have employed some youth from around although some people were complaining that they came with their workers. Those employed complained that they were being under paid and yet work beyond working hours. Actually in the beginning many of them were employed but later we realised that some had left – they were paying them 12,000/- per day.

The fence is going to be very useful. The college has been suffering. The thieves have been coming in from all sides, so we might be a little safer. When the UTC was hired for athletes – sports, the thieves would also come in and steal everything. Not only this, whenever a staff left her or his home, they would come and steal. The neighbourhood which has St. Peters Ireda PS and Nursery, and Ireda estate housing district officials has plenty of land some of which was a forest used by thieves as a hideout – whenever they would steal they would go and hide the stolen items there, then pick them up at night.

Recommendations: sensitise people about the new project coming on radio. All stakeholders need to know about the project – the district officials, the district engineer. The LCs should also sensitise the neighbouring community about the coming project, talk about the project in church and other meetings such as division/sub-county meetings. Some community members have negative attitudes – they don't understand that the fencing was for the benefit of the college – some of them even wanted the college to leave for them a small gate of their own for coming in – they said that if the college did not leave for them a gate, they cut the chain link and get into UTC. The LCs became tough on them and told them that if the fence is cut, they will be responsible for paying. All the same, they cut 3 angle bars and stole them. It is terrible some of the thieves climb the mango trees monitoring and observing who is coming while their colleagues are stealing.

UTC Elgon Interview**Mr. Andrew MUSAAZI** (Principal), **Mr. Apunyo A. Henry** (Accountant), and **Mr. Musiimaani David** (IRO)

Tuesday, 26/08/2014: 12 noon – 1.30 pm

Institution's Land: the college has **199.7 acres** of land. The proportion of land currently under use is about **30%** which has classrooms, workshops, laboratories, dormitories, staff houses and the administration block. The rest of the land is being cultivated by the community and members of staff – some of these use it for agriculture, quarrying because the place is rocky. The college allowed the community to use the land to maintain a good relationship. As far as charging them for using the land or allowing them on a hire basis is concerned, the college is still studying the idea. The community here is very poor; even if you try to assess how many students at the college are from the community around, they are very few but the Lands and Housing Committee is studying it so that something small can be charged from the community using the Institution's land – they will come up with a report. So far, no community member has been charged for using the land. Most of the land is rocky and therefore most people fear to have projects there especially construction projects because the cost of working on the rocks is high. That is the challenge that we have.

The college has a **land title** but the history of the college needs to be put into perspective. The college started as a technical school, later it became an institute and then a college. The title was acquired when the institution was a technical school and therefore it is in **the name of Elgon Technical School**. When the new management came into office, it was tasked by the GC to process a land title for the college land. Management went ahead as instructed but when they were about to be issued one, they were informed that the college already had a land title. They were then issued with a certified copy of the title since they hadn't known that one had been issued some time back neither could they locate it at the college. Since the college started a long time ago in 1931; and the wars that the country went through, it could have been lost during that time. This discovery was taken to the GC who then tasked management to change the name of the land title to UTC, Elgon.

The **land is not fenced** – it has not been possible to fence it given its big size. However of recent we got the Uganda National Education Support (UNES)/IDB project which is constructing dormitories, classrooms, workshops, laboratories and they are fencing part of the land. Initially when the college was processing for a land title, there were a few complaints about the demarcations of the land from some community members but since it was discovered the land has a title, it will be a matter of opening up the boundaries with ease. Some of these thought that the college does not know its boundaries and wanted to take advantage but now with a land title, this will not be possible. It has taken long (3 years now) to have the title but it will eventually be got

Master Plan: There is **no master plan** for the college. It was very difficult to prepare a master plan without a land title – when the college is not sure it owns the land. The GC very much wanted a master plan but on realizing that the college didn't have a title, it had to pursue the title first. The challenge now is that the land title name has to be changed into the names of UTC, Elgon so that a master plan for the college can be prepared. Since the GC resolved, processing the land title (name change) and preparing a master plan are going to be undertaken concurrently.

Land uses: The land is used for buildings (classrooms, workshops, laboratories, dormitories, staff houses and the administration block); cultivation by the community and staff members; quarrying; brick laying; grazing on a limited scale because there are gardens of beans, yams,

Area of Focus: The area of focus for the project will be construction.

Experience with Resettlement Issues under Building Constructions: The budget for the IDB project kept changing from the initial budget and therefore they kept on reducing on the scope of work. They also tried to get sites that would not cost them a lot of money in terms of excavating where they were going to construct the buildings. Therefore, we ended up having buildings where they are now instead of where they would have been because of the costs of the project would have incurred when excavating rocks. This was a challenge – the college had preferred to have the buildings across the road but money is never enough and no project wants to go there unless the money is 'enough'. There are some elderly men or senior citizens in the area who are used by the college to oversee its land and ensure the demarcations are not tampered with. It is these overseers who slowly informally allowed some community members to use the land.

Capacity Needs/Gaps: The institution lacks skills in RPF/resettlement/compensation management. They cautioned that if things become too technical, much as they have reported that staff and community members are utilizing the land to supplement their livelihoods, they will deny them and say that they do not know them. They have deliberately decided not to formally

recognize them due to this fear. The institution is handicapped in so many ways – and should there appear to be something small that may try to prevent a project from taking off – we shall say we do not know these people since they would make the institution's land appear to have encumbrances. It happened at UTC Lira when the IDB Project was starting; a staff member wanted 30 million for his cassava garden - and we heard that the response from the MoES was that it was not aware that a staff is using the college's land.

It is also important to note that the people using the college's land are aware that they are temporarily using the land as a result of the colleges kind gesture and would be willing to vacate peace fully when the land is needed. The college does not foresee having problems over the issue.

Potential Impacts: Positive – The College doesn't know exactly what the project is bringing; and it also doesn't know whether what it proposed would be accepted in order to consider the likely impacts of the project. The project is good because it will get us something when there is nothing – the college knows exactly what it wants for the USDP and where it wants it be. However many projects have come with very good proposals in the beginning only to keep changing along the design process and when the final design is eventually presented, it is totally something else! UTC Elgon management expressed their unhappiness with the fact that their participation in the design and selection of sites for construction is not respected. The coming developments in the college are overdue; take the example of the colleges intake – there are over four thousand applicants every year, but the college capacity is so low. The applicants for civil engineering alone last year for Elgon were about 1000 but only 110 were taken. Therefore with increased and improved facilities, the intake will go up; the skills imparted on the students will also improve (better quality). When the specifications of the required materials for construction are presented to the local community so that they can supply them instead of getting from outside will benefit the local community e.g. bricks. This will make them feel part of the system. It will improve the environment of the college – outlook.

It will empower the lecturers with appropriate skills for the world of work which will be imparted to the students, hence get products of high quality – needed in the work place.

Negative impacts – It is difficult to think about negative things when one expects good things to come. The college does not know how the project will handle the rocky places during construction; the drainage etc after construction. A swam of people may come to this area during construction and in the course of people interacting, moving around to have their beer, some may go for girls, women and issues of HIV/AIDS may arise. Secondly construction work seems to be technical but for the non-technical part for purposes of the community benefiting, how can they be absorbed in the project especially those who have been earning a livelihood from the land – how can the project make them accept it well? If the projects employs only people from outside and brings raw materials as well from outside. The college expects to have a workshop for civil engineering where by students can practice all the time – a workshop which has a model house of two rooms which is not completed so that when students want to practice how to fix a window, they can practice on the model house; practicing how to lay tiles; and practicing how to put ventilators. Therefore in the course of training, we do not anticipate any negative impacts on the students and community around because it will be the normal training. Changing the pattern of land uses may adversely affect the community especially the one utilizing the land. There is a challenge – the courses are very expensive in terms of training; for example each student pays 1.236.000/- per semester; and in India it is 2.500.000/- per semester and moreover it is day unlike here which is boarding. In these trainings, there are real life projects in all courses; if this cannot be undertaken at the college, it is done in the community where the college sometimes contributes to the materials. Therefore, to raise a number that can help the college break even, there may be temptations to intake more than the capacity so that you don't have a scenario where you have 30 students constructing a small room; they will not get the required skills – a small room requires about 10 or 15 students to learn effectively but if there aren't enough materials, even 50 students can be made to construct a small room. Therefore the temptations come in to get more students so that the college is able to get their materials. However it has also been realized that the world of work is no longer interested in half-baked people, so we are moving away from that and ensure that students graduate with the required skills – gradually there is need to increase on the materials fees and not numbers. The college is now going in for quality and not quantity – even accommodation, students no longer want to sleep on double-decker beds; the girls dormitory will be portioned so that where it was accommodating 50, it will take only 35 students. The temptation will not be there, otherwise the whole essence of a centre of excellence.

The issue of lecturers' competencies enhanced through further training which might drive them away in search of greener pastures due to poor pay. It was proposed that perhaps the GC should be given the powers to hire and fire and adequately pay them for motivation. If the institution becomes business-like it should be able to generate income to supplement government grants and students fees

Gender Issues: Why is enrolment of girls low in the UTC ? It goes back to career guidance from primary to secondary – they get a negative perception at lower levels that engineering is for boys – need to change the mindset that even women can do it; and sensitisation. Even in the world of work, there are many employers who shortlist only men when jobs are advertised. Let me tell you about our schools, they don't want female teachers because of pregnancy and leave. You will find that the female teachers there are young and unmarried. There are some construction companies that still think that a female cannot construct like her male counterpart. And yet we have seen women work from 8am till 5pm tirelessly no-stop. The point is that if female constructors are rejected in the world of work, they will pass on the same information to others. Much as the MoES and the institutions are trying very hard that women enroll for these courses, there is still a problem where they are going after skills attainment. The GC resolved to create a good environment for the students especially the girls so that when they come here they are encouraged to study here. The GC also resolved that the college should take all the girls who apply, of course on government sponsorship there are strings attached, but the college takes all girls who apply on private sponsorship. The dormitories being constructed with support from the IDB accommodate about 112 students down stairs and the same number upstairs. Management therefore felt that it cannot accommodate boys below and girls above. It decided to renovate the dormitories for the girls so that they can feel comfortable. The college started with renovating the roof which is completed now. Next for renovation is the dormitories which will be partitioned to suit the privacy of the girls – one dorm will accommodate about 35 to 40 girls. The college hopes to expand using real life projects.

Senior CDO and Ag. DCDO, Mbale District Local Government
Mr. Wandwasi Robert
Tuesday, 26/08/2014

Issues of any project in relation with the people are very critical. For example a dam was going to be built in Mbale to benefit the communities of Busui, Busoba, Manafa and Bududda but people refused it. Why? Because where the dam was going to be put was the people's livelihoods – so people acknowledged that having the dam was fine but where would they get their livelihoods. It is therefore important to undertake a baseline survey and stakeholder analysis, look at what kind of people live there, how many are they, who will be affected, on whose land will be the project, what economic activities take place and work out ways of how to resettle the people before the project can start. Who are the community leaders in the area that can be used to talk for the project? Also important to know from the SH analysis is which people should be involved at the initial stages and which ones should be engaged later. It was not going to displace anyone but people were misinformed that it would take a big chunk of land. It was bad; people rioted and slashed the whole banana plantation of the LC V Chairperson who comes from there. By the time it was realised and started working backwards, it was too late, the community had taken advantage of the gap/loophole. People need to be prepared well. Politicians may come with their wrong information and politicize the project but when the CD office is utilised and all SH work together such incidences can be avoided. Local politics came into play and we lost the project.

At the college land, there are people's gardens and quarrying is taking place – producing the best aggregates in the area which is also used for making roads – so when the people sell the land, they are looking at how useful it has been to them. Most people constructing houses in Mbale always get their stones from there because of their quality. It is therefore very important they talk to the people (and other stakeholders) so that they get know about the project, how they are going to benefit from the project; and then they can be part of the project and support it. Otherwise, they will say no to the project. It is a blessing to have such a project at an institution that was once well known to produce good electrical engineers in the area.

Potential Impacts: The project has a positive socio-economic impact to the community. Socially, this may affect the people who are cultivating on the institution's land which might deny them access to their source of livelihoods. It is therefore imperative that these be involved in the project so that they can support the project. Secondly those people who do stone quarrying will be affected by denying them access to their livelihood. In the vicinity is a primary school, in the longer term as the college expands, it may be required to move. Should the site be near the school, it may be affected environmentally with dust and noise pollution. When more people (workers) come to an area, they provide market for goods and services in the area boosting the local economic base. The project may need local labour which the community will provide; it might also need wood fuel which the community will provide. The nearby trading centre will grow bigger because it will be providing services to the people.

Negative impacts: trees will be destroyed as they clear the site and operation areas; the land is hilly, thus some water runoff may erode the soil – need for an environmental action plan. As the institution grows and expands, in future people may have to be relocated or opt to sell their land to the college. This destabilizes them as well as affecting their livelihoods.

Past experience: road constructions, construction of staff houses and health units but on a very small scale has the district had to displace some people. These were talked to and compensation done. When this happened, the SC administration took the lead in negotiations and the district only supported. Thus the two LGs worked together to provide solutions and compensations that have to be made. Usually a compensation committee is set up comprising of members from both LGs and some political leadership.

A community member provided his land at a health unit to enable the district construct a staff house and he requested some little money (to district standards 3M was little) as compensation. However, a committee was not set up for this compensation. It therefore happened that the initial money mobilization for the compensation was not handed over to the PAP, and instead somebody 'ate' it. When the person discovered that his compensation had changed hands, he went and fenced the site, the house was now at beam level, said that they were trespassing because they had not paid for the land. This stalled the construction and had to go into negotiations again (now with a committees headed by a local political leader) and with all the inconveniences he incurred, he requested for 10M. When only 4M had been mobilized and handed to him as more was still mobilized; he rejected and said that he had waited for long and wanted all the money in cash. Later the person realized that the man heading the committee was the one who had 'eaten' his 3M, he demanded for 15M and refused the committee as he was not sure the same man would not 'eat' his money. Another team was instituted including some religious leaders as well and district team. The new team/negotiations came to an agreement of 10M and agreed to give him 6M cash and 4M cash later. This was because of the trust the man had in the new committee that he accepted part payment and also allowed the construction to resume before completion of payment. The **key lesson** is that there must be a committee and not just one person; and the members of the team must be selected carefully so that credible and trustworthy people are selected to avoid

similar problems. There have been cases where some people have gone to court. Someone offered land to a lower LG in the old days, it is an old case and not yet resolved today. The person who gave the land was a chief and a non-Mumasaba (during the Kakungulu days); he gave it to the colonial administration to put up a sub county. And now there are some people who are claiming for the land; that it was their great-great grandfathers' land. They want the SC off their land or pay for it. The challenge is that **many of the institutions (schools, colleges, churches, and sub-counties) have no land titles** because at that time, the old men would give land on good will and nobody bothered to get land titles. And over time, people realised that these institutions had no land titles and would wake up one day and claim the land belonged to them and would tell LG to produce evidence. This has awakened the LGs and they have started surveying the land and obtaining land titles.

Responsibility of CDO: Mobilize the community for the meetings; facilitate the meeting/discussions; take them through, orient and sensitized so that when the implementers come in when the community is already prepared, know how they will benefit from the project and welcome it.

Capacity: the department has a lot of capacity. At district level are 4 officers at district level: i.e. DCDO, SCDO, Senior Probation and Social Welfare officer (SPSWO), and Labour and industrial relations officer. Only 2 positions are not filled i.e. the SCDO and senior labour officer with somebody acting. And then at every sub county is one CDO who are graduates – these are planners and implementers while at the district level (DCDO level) it is supervision. The department requires capacity building in compensation and resettlement issues especially of the CDOs at SC level. Logistical Resources are even a bigger challenge in the dept than human resources and this is right from national level – MoGLSD. Compared to other ministries, it gets very little, thus have little to dispatch to the districts – sometimes the dept is unable to provide fuel to staff to work and sometimes use their own money for transport. Some have motorcycles but no fuel. No staff accommodation.

The department receives only 2M from local revenue to serve the four areas (community, labour, probation and coordination); for people who are supposed to go to the field! Having graduates walking in communities to mobilize people because there are no resources does not motivate anyone. This makes them schedule their work according to how much they have recovered from previous walking for the next. Community and environment are the least resource allocation recipients.

Recommendations: Lower governments should put up housing for staff. Currently the sub county staff is about 10 to 15 who need accommodation in order to retain them there. Other benefits should accompany the housing to motivate them. Adequate funds should also be allocated to the department because all other departments depend on the CBS department for mobilization and sensitization. For instance NAADS very much depended on the CD department.

Annex 7: Example of ESMP

Environmental issue	Mitigation measures taken or to be taken	Agency in charge of implementing measures	Indicators to be monitored	Agency in charge of monitoring	Frequency of Monitoring
1. Land take prior to construction	<ul style="list-style-type: none"> ▪ Mandatory regulatory notice to be given to affected persons before commencing project activities ▪ Compensation / resettlement will be undertaken for land owners before project commencement. 	Vocational Institution	Number of land owners not compensated	Chief Government Valuer (CGV)	Monthly
2. Sediment deposition into wetlands	Sediment traps to be provided when working near rivers/ swamps.	Contractor	Muddy color in water	District Wetlands Office,	Monthly
3. Opening and use of quarries and borrow sites	<ul style="list-style-type: none"> ▪ Prepare project briefs for all borrow sites as required by NEMA. ▪ Restore borrow pits, and return them to original owners without visual blight or residual contamination. 	Contractor	<ul style="list-style-type: none"> ▪ Number of land owners compensated ▪ Number of borrow pits and quarries restored. 	NEMA (through DEOs)	Upon project commencement and at sites closure (at end of project)

Annex 8: List of Third Schedule Projects according to *The National Environment Act, Cap 153*

The National Environment Act Third schedule Projects to be considered for environmental impact assessment.

1. **General –**
 - a) An activity out of character with its surroundings;
 - b) Any structure of a scale not in keeping with its surrounding;
 - c) Major changes in land use.
2. **Urban development, including –**
 - a) Designation of new townships;
 - b) Establishment of industrial estates;
 - c) Establishment or expansion of recreational areas;
 - d) Establishment or expansion of recreational townships in mountain areas, national parks and game reserves;
 - e) Shopping centres and complexes.
3. **Transportation, including-**
 - a) All major roads;
 - b) All roads in scenic, wooded or mountainous areas;
 - c) Railway lines;
 - d) Airports and airfields;
 - e) Pipelines;
 - f) Water transport.
4. **Dams, rivers and water resources, including-**
 - a) Storage dams, barrages and weirs;
 - b) River diversions and water transfers between catchments;
 - c) Flood-control schemes;
 - d) Drilling for the purpose of utilizing ground water resources, including geothermal energy.
5. **Aerial spraying**
6. **Mining, including quarrying and open-cast extraction of-**
 - a) Precious metals;
 - b) Diamonds;
 - c) Metalliferous ores;
 - d) Coal;
 - e) Phosphates;
 - f) Limestone and dolomite;
 - g) Stone and slate;
 - h) Aggregates, sand and gravel;
 - i) Clay;
 - j) Exploration for the production of petroleum in any form.
7. **Forestry-related activities, including-**
 - a) Timber harvesting;
 - b) Clearance of forest areas;
 - c) Reforestation and afforestation.
8. **Agriculture, including-**
 - a) Large scale agriculture;
 - b) Use of new pesticides;
 - c) Introduction of new crops and animals;
 - d) Use of fertilizers.
9. **Processing and manufacturing industries, including-**
 - a) Mineral processing, reduction of ores and minerals;
 - b) Smelting and refining of ores and minerals;
 - c) Foundries;
 - d) Brick and earthenware manufacture;
 - e) Cement works and lime processing;

- f) Glass works;
- g) Fertilizer manufacturing or processing;
- h) Explosives plants;
- i) Oil refineries and petrochemical works;
- j) Tanning and dressing of hides and skins;
- k) Abattoirs and meat-processing plants;
- l) Chemical works and process plants;
- m) Brewing and malting;
- n) Bulk grain processing plants;
- o) Fish processing plants;
- p) Pulp and paper mills;
- q) Food processing plants;
- r) Plants for the manufacture or assembly of motor vehicles;
- s) Plants for the construction or repair of aircraft or railway equipment;
- t) Plants for the manufacturing or processing of rubber;
- u) Plants for the manufacturing of tanks, reservoirs and sheet-metal containers;
- v) Plants for the manufacturing of coal briquettes.

10. Electrical infrastructure, including-

- a) Electricity generation stations;
- b) Electrical transmission lines;
- c) Electrical substations;
- d) Pumped-storage schemes.

11. Management of hydrocarbons, including the storage of natural gas and combustible or explosive fuels

12. Waste disposal, including-

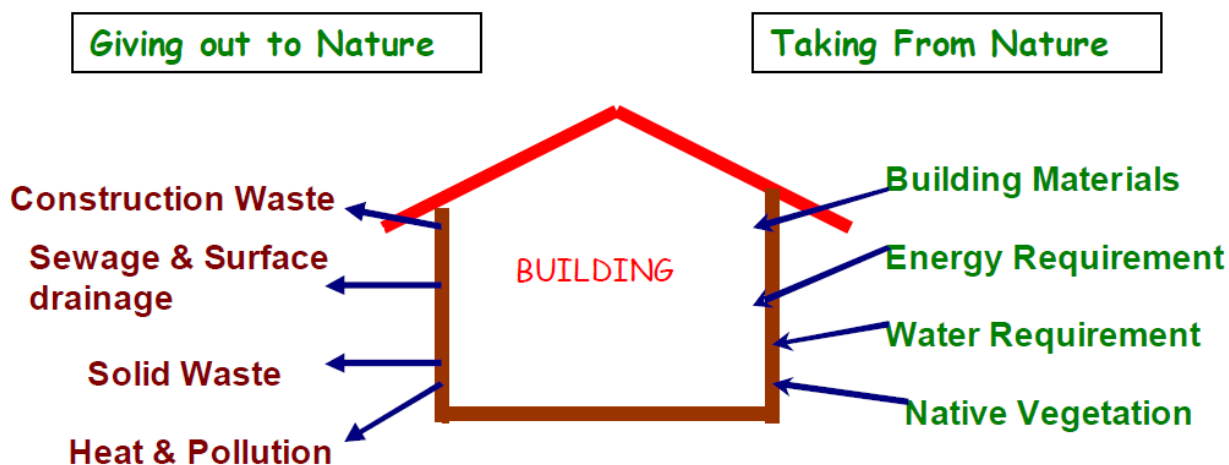
- a) Sites for solid waste disposal;
- b) Sites for hazardous waste disposal;
- c) Sewage disposal works;
- d) Major atmospheric emissions;
- e) Offensive odours.

13. Natural conservation areas, including-

- a) Creation of national parks, game reserves and buffer zones;
- b) Establishment of wilderness areas;
- c) Formulation or modification of forest management policies;
- d) Formulation or modification of water catchment management policies;
- e) Policies for management of ecosystems especially by use of fire;
- f) Commercial exploitation of natural fauna and flora;
- g) Introduction of alien species of fauna and flora into ecosystems.

Annex 9: Typical construction impacts

Typically impacts of construction projects arise from sourcing materials and what is generated after they are used (construction waste) as illustrated below.



Typical impacts are outlined in table below.

	Action	Impact	Mitigation
1	Change of Landuse.	<ul style="list-style-type: none"> ▪ Direct Impact – On plot of land ▪ Indirect Impact – On neighbouring plots. ▪ Cumulative Impact – On surrounding area which will gradually change. 	<ul style="list-style-type: none"> ▪ Restrict development to institution's land. ▪ Ensure development is permitted by local physical planning office.
2	Clearing of vegetation.	<ul style="list-style-type: none"> ▪ Soil erosion ▪ Dust emissions 	<ul style="list-style-type: none"> ▪ Minimise vegetation clearing by restring activity to building footprint, as much as possible. ▪ Revegetate cleared areas as quickly as practicable. ▪ Ensure proper site drainage
3	Material transportation.	<ul style="list-style-type: none"> ▪ Accidents risk. ▪ Road dust. ▪ Traffic noise at vocational institution's campus. 	Schedule this to be before or after class hours.
4	Building activities.	Construction noise.	Schedule noisy activities to be outside class hours.
5	Risk of falling debris.	Accident to students.	Fence off construction site to avoid access by students.
6	Waste management	Illegal dumping of waste in unauthorized places leading to contamination or grievances by property owners.	<ul style="list-style-type: none"> ▪ Ensure waste disposal is done with guidance of local environment officer's guidance and authorization. ▪ Stripped soil (overburden) should

			<p>be used for site restoration/ landscaping, rather than being dumped offsite.</p> <ul style="list-style-type: none"> ▪ Workers should not litter campus with litter (plastic bags, water bottles, etc). ▪ Reusable waste (e.g. timber planks, paper bags, etc) should be given to local people if requested. ▪ Pit latrines should be lined with masonry brickwork to enable their emptying with a honey sucker when full.
7	Working at heights or depths	<ul style="list-style-type: none"> ▪ Risk of falls when workers at height (e.g. roofs) do not use safety latches. ▪ Risk of workers being interred by collapsing earth walls when digging pit latrines. 	<ul style="list-style-type: none"> ▪ All workers should have appropriate safety gear ▪ Latrines should be safely dug on firm ground, carefully watching out for signs of possible wall failure.
8	Material acquisition	<ul style="list-style-type: none"> ▪ Leaving borrow sites unrestored after project completion. 	<ul style="list-style-type: none"> ▪ Obtain material from already existing borrow sites and stone quarries.
9	Employment	<ul style="list-style-type: none"> ▪ Local people benefitting from construction projects 	<ul style="list-style-type: none"> ▪ Contractors should hire atleast 5 people from the local community at anyone project.
10	Occupational safety	<ul style="list-style-type: none"> ▪ Workers getting buried by collapsing earth walls when digging pit latrines 	<ul style="list-style-type: none"> ▪ Pits must never be dug in unstable soils ▪ All workers must have necessary safety gear

Annex 10: Format of an Environmental Report

A EIA report should include the following items (not necessarily in the order shown):

- (a) *Executive summary*. Concisely discusses significant findings and recommended actions.
- (b) *Policy, legal, and administrative framework*. Discusses the policy, legal, and administrative framework within which the EA is carried out.
- (c) *Project description*. Concisely describes the proposed project and its geographic, ecological, social, and temporal context, including any offsite investments that may be required (e.g., dedicated pipelines, access roads, power plants, water supply, housing, and raw material and product storage facilities). Indicates the need for any resettlement plan or indigenous peoples development plan.
- (d) *Baseline data*. Assesses the dimensions of the study area and describes relevant physical, biological, and socioeconomic conditions, including any changes anticipated before the project commences. Also takes into account current and proposed development activities within the project area but not directly connected to the project. Data should be relevant to decisions about project location, design, operation, or mitigation measures. The section indicates the accuracy, reliability, and sources of the data.
- (e) *Environmental impacts*. Predicts and assesses the project's likely positive and negative impacts, in quantitative terms to the extent possible. Identifies mitigation measures and any residual negative impacts that cannot be mitigated. Explores opportunities for environmental enhancement. Identifies and estimates the extent and quality of available data, key data gaps, and uncertainties associated with predictions, and specifies topics that do not require further attention.
- (f) *Analysis of alternatives*. Systematically compares feasible alternatives to the proposed project site, technology, design, and operation--including the "without project" situation--in terms of their potential environmental impacts; the feasibility of mitigating these impacts; their capital and recurrent costs; their suitability under local conditions; and their institutional, training, and monitoring requirements. For each of the alternatives, quantifies the environmental impacts to the extent possible, and attaches economic values where feasible. States the basis for selecting the particular project design proposed and justifies recommended emission levels and approaches to pollution prevention and abatement.
- (g) *Environmental management plan (EMP)*. Covers mitigation measures, monitoring, and institutional strengthening.
- (h) *Appendixes*
- (i) List of EA report preparers--individuals and organizations.
- (ii) References--written materials both published and unpublished, used in study preparation.
- (iii) Record of interagency and consultation meetings, including consultations for obtaining the informed views of the affected people and local nongovernmental organizations (NGOs). The record specifies any means other than consultations (e.g., surveys) that were used to obtain the views of affected groups and local NGOs.
- (iv) Tables presenting the relevant data referred to or summarized in the main text.
- (v) List of associated reports (e.g., resettlement plan or indigenous peoples development plan).

Annex 11: Training Capacity Requirements

ENTITY	DEPARTMENT	HUMAN RESOURCE		TRAINING NEEDED	TRAINING NEEDS
		AVAILABLE	Missing (NEEDED)		
MINISTRY OF EDUCATION & SPORTS	Construction Management Unit	<ul style="list-style-type: none"> • Civil Engineers • Architectural Assistants 	Socio-Environmental Safeguards Officer	<ul style="list-style-type: none"> • EIA process in Uganda • World Bank safeguard policies 	<ul style="list-style-type: none"> • World Bank Social-Environmental safeguards. • Socio-Environmental Monitoring
Local Governments	Lira, Mbale, Bushenyi and Luweero	<ul style="list-style-type: none"> • District/ Municipal Environment Officers (DEO) • Community Development Officers (CDO) 	N/A	<ul style="list-style-type: none"> • EIA process in Uganda • World Bank safeguard 	<ul style="list-style-type: none"> • World Bank Social-Environmental safeguards. • Socio-Environmental Monitoring

Annex 12: Impact Significance

To establish impact significance, two concepts (*likelihood* and *severity*) are utilized as follows:

- a) Impact **likelihood**: how likely is the impact to occur (none, low, medium and high);
- b) Impact **severity**: how severe is the impact (negligible, low, medium, and high). Severity of an impact is a function of a range of considerations including:
 - i) Impact *magnitude*
 - ii) Impact *extent*
 - iii) Impact *duration*
 - iv) Receptor *sensitivity*

Impact **significance** is derived as a combination of the above two concepts as shown in Matrix 1 while indicative examples of impact severity are presented in table below.

Matrix 1: Evaluation of impact significance

(+ve)		Impact Likelihood			
		None	Low	Medium	High
Impact Severity	Negligible	Negligible	Negligible	Negligible	Negligible
	Low	Negligible	Negligible	Negligible - Minor	Minor
	Medium	Negligible	Minor	Minor - Moderate	Moderate
	High	Minor	Moderate	Major	Major

Table 7: Indicative examples of impact severity

	Major impact	Moderate impact	Minor impact
Legislative compliance	Expected non-compliance with national regulatory standards or good industry practice (for example, IFC Performance Standards)	Potential for non-compliance with national regulatory standards or good industry practice	Expected compliance with national regulatory standards or good industry practice
Biophysical environment	<p>Long-term (>10 years) and widespread changes to habitat or ecosystem features or functions that reduce its integrity, affect the ability to sustain valued components and may require extensive intervention. The habitat/ecosystem may not recover to its baseline state.</p> <p>Disturbance of a sufficient portion of the bio-geographic population of a species to cause a decline in abundance, distribution or size of the genetic pool such that the population of the species, and other species dependent on it, will not recover naturally to former levels.</p> <p>Major loss or major alteration to an internationally designated site whereby key features will be fundamentally changed</p> <p>Incident that requires mobilisation of international response equipment and crews</p> <p>Major change to the visual quality, setting and feeling associated with a rare or unique (inter)nationally recognised landscape</p> <p>Widespread and permanent change to</p>	<p>Changes to a habitat or ecosystem ecological features or functions that reduce its integrity, but recovery to baseline state is expected within 5-10 years.</p> <p>Disturbance of a sufficient portion of the bio-geographic population of a species to cause a decline in abundance, distribution or size of the genetic pool such that the population of the species, and other species dependent on it, will not recover within several generations.</p> <p>Major loss or major alteration to a locally designated site whereby key elements will be fundamentally changed</p> <p>Injury or death of an IUCN listed “Endangered” species.</p> <p>Incident that requires mobilisation of national / company response equipment</p> <p>Major change to the visual quality, setting and feeling associated with a rare or unique locally recognised landscape.</p> <p>Fundamental change to hydrology and hydrogeology resulting in temporal changes to the watershed.</p>	<p>Reduction in ecosystem or habitat integrity, but recovery to baseline state is expected within 2-5 years with minimal intervention.</p> <p>Disturbance of a bio-geographic population or individuals of a species resulting in a decline in abundance or distribution over one or more generations, but that does not change the integrity of the population of the species or populations of other dependent species.</p> <p>Injury or death of an IUCN listed “Vulnerable” species.</p> <p>Incident that requires mobilisation of on-site response equipment and crews.</p> <p>The development will not affect the key characteristics that contribute to the distinctiveness and/or value of the landscape.</p> <p>A noticeable but not fundamental change to hydrology or hydrogeology.</p>

	Major impact	Moderate impact	Minor impact
	hydrology and hydrogeology in an internationally or nationally designated site.		
Social environment	<p>Physical resettlement (as defined in IFC PS 5) of a community</p> <p>Increased public exposure to health threats that may increase mortality rates</p> <p>Change that differentially affects the life chances (access to health care/medicines) of vulnerable groups (disabled, elderly, female-headed households and those living below officially defined poverty or subsistence levels)</p> <p>Damage to a site of international cultural importance or national site where damage is likely to provoke protest / unrest</p> <p>Unplanned in-migration flows sufficient to cause exceedance of the capacity of numerous components of physical or social infrastructure.</p>	<p>Physical resettlement (as defined in IFC PS 5) of one or more households/businesses</p> <p>Reduction in assets, or access to assets, such that economic displacement (as defined in IFC PS 5) affects five or more individuals, households or businesses.</p> <p>Job losses in small communities with very limited alternative opportunities in the near-medium term (within one year of job losses)</p> <p>Changes likely to prejudice success of an existing policy or plan</p> <p>Change that differentially affects the livelihoods of vulnerable groups (disabled, elderly, female-headed households and those living below poverty or subsistence levels)</p> <p>Damage to a site of national cultural importance or local site where damage is likely to provoke protest / unrest</p> <p>Medium to long-term (>1 year) financial loss to businesses where recovery may be difficult</p> <p>Unplanned in-migration flows sufficient to cause exceedance of the capacity of at least one component of infrastructure.</p> <p>Movement of development traffic through very sensitive areas (e.g. near schools, hospitals) or that may exceed carrying capacity of roads.</p>	<p>Reduction in assets, or access to assets, such that economic displacement (as defined in IFC PS 5) affects 1-4 individuals, households or businesses.</p> <p>Job losses in a community able to adapt and provide alternative job opportunities in the near - medium term (within one year)</p> <p>Damage to a site of local or regional cultural importance</p> <p>Short-term (<1 year) financial loss to owners of businesses where recovery is likely</p> <p>Unplanned in-migration not expected to cause infrastructure capacity exceedance.</p> <p>Increases in incidences of cultural conflict, but expected to be contained within existing social control norms.</p> <p>Increased public exposure to health threats that may increase morbidity rates</p> <p>Decline in access to health care facilities and acquisition of treatment</p> <p>Movement of development traffic through community areas or having the potential to add unsuitable loadings to the road infrastructure</p>

Annex 13: Strategy for Procurement, Use and Disposal of Agro-Chemicals at Bukalasa Agricultural Training College

Proper management of agro-chemicals is important for Bukalasa Agricultural Training College to ensure public and environmental health. This annex provides overall 10-point institution-wide strategy for proper management of pesticides at Bukalasa Agricultural Training College as well as a guidance for procurement, use and disposal of pesticides used for training and research at the college.

1) Recommended institution-wide strategy

Table A13.1: A 10-point strategy for proper management of agro-chemicals at the agricultural college

<p>Harmonised agrochemical management (mitigation of pollution)</p> <p>1. Harmonised procedures for agro-chemical management should be adopted at the College.</p> <ul style="list-style-type: none"> ▪ Model legislation on Pesticides and Toxic Chemical should be ratified and adopted. This will dictate the administration, use, and monitoring of agro-chemicals. ▪ Administrative procedures should reflect the requirements of the harmonised legislation and be promoted. ▪ A locally owned and managed database should be developed for harmonised administration and information sharing at the college. ▪ Regionally acceptable (or local) standards for Maximum Residue Limits should be adopted, in the absence of which the Food and Agriculture Organisation (FAO)/World Health Organisation (WHO) Codex Alimentarius standards should be applied. <p>Supporting the system for agro-chemical Management</p> <p>2. Sustainable financing and cost recovery mechanisms must be investigated and, where necessary, novel and creative means found to develop capacity and to fulfill all functions of the various institutions involved in all aspects of agro-chemical management.</p> <p>3. College staff experienced in communications should be engaged for communication, education and training about agro-chemicals. Change-management concepts should be applied.</p> <p>4. The College should undertake an institutional analysis and evaluation of the capacity and resource needs of the College to effectively manage agro-chemicals.</p> <p>5. The College should have an Agro-Chemical Management Unit (ACMU) with dedicated full-time staff and financed to store, control, manage destruction (by a licensed firm), administer and implement national legislation relating to storage, use and destruction of agro-chemicals.</p>	<p>GAP and other good practice codes of conduct (mitigation of pollution)</p> <p>6. The College should implement Good Agricultural Practices (GAP) and other good practice codes of conduct for agro-chemical use.</p> <p>Informing management decisions (monitoring and research)</p> <p>7. The College should promote research on Integrated Pest Management (IPM) and Integrated Management of Pests and Pesticides (IMPP) as a means of improved management of the use of pesticides.</p> <p>8. Socio-economic analyses, including cost-benefit analyses, should be conducted for different farming practices, including options for agro-chemical use (e.g. IPM).</p> <p>9. Bukalasa Agricultural College should carefully design a public health monitoring plan and ensure adequate analytical capacity to enable monitoring for compliance with standards for public health (i.e. medical and food residue monitoring laboratories).</p> <p>The College should design a long-term environmental monitoring plan must that monitors agro-chemicals from land to the nearest watercourse.</p> <p>Transportation, Storage and Destruction</p> <p>10. Agrochemicals must be transported sealed in original containers. Storage must be in a well-ventilated room away from excessive heat and sunlight.</p> <p>Expired chemicals must be managed and disposed of by a NEMA licensed company.</p>
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2) Recommendations for agro-chemicals procurement, distribution, use and disposal

There are no agricultural pesticides manufactured or formulated in Uganda. Suppliers of imported pesticides come mainly from India, China, Taiwan, Israel, Europe or branch offices of international companies in Kenya.

i) Distribution

There are a number of wholesalers, who distribute to small scale stockists (dealers), mostly in Kampala but also in the interior. Nakivubo, a section near the Balikuddembe (formerly called Owino) market in Kampala, is the site of more than 50 small shops that sell either agricultural, public health, or veterinary supplies. The area is commonly called, "Container Village".

ii) World Bank Safeguard requirements for pesticides procured and used under SDP

- Pesticide financed under SDP must be manufactured, packaged, labeled, handled, stored, disposed of, and applied according to standards that, at a minimum, comply with the FAO's Pesticide storage and stock control manual (FAO, 1996), Revised guidelines on good labeling practice for pesticides (FAO, 1995), Guidelines for the management of small quantities of unwanted and obsolete pesticides (FAO, 1999), Guidelines on Management Options for Empty Pesticide Containers (FAO, 2008), and Guidelines on personal protection when using pesticides in hot climates (FAO, 1990).
- Consistent with World Bank OP 4.09, SDP financing will not be used for formulated products that fall in WHO classes IA and IB, or formulations of products in Class II, if (a) the country lacks restrictions on their distribution and use; or (b) they are likely to be used by, or be accessible to, lay personnel, farmers, or others without training, equipment, and facilities to handle, store, and apply these products properly.
- SDP financing will not be used for any pesticide products which contain active ingredients that are listed on Annex III of the Rotterdam Convention (on Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade), unless the Country has taken explicit legal or administrative measures to consent to import and use of that active ingredient.
- SDP financing will not be used on any pesticide products which contain active ingredients that are listed on Annex A & B of the Stockholm Convention on Persistent Organic Pollutants, unless for an acceptable purpose as defined by the Convention, or if an exemption has been obtained by the Country under this Convention.
- SDP financing will not be used for any pesticide products which contain active ingredients that are listed on Annex III of the Rotterdam Convention (on Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade), unless the Country has taken explicit legal or administrative measures to consent to import and use of that active ingredient.

iii) Transport, Distribution, Storage and Application of Pesticides

Outlined below is guidance for safe management of pesticides at the college.

a) Avoidance of misuse

Misuse of agro-chemicals should be avoided by:

- Applying the wrong dosage, often over-applying. Farmers often spray hazardous insecticides like organochlorines over five times in a season when two or three times can be sufficient;
- Spraying pesticides intended for growing crops on stored crops;
- Using obsolete or expired pesticides;
- Mixing different chemical pesticides together.

b) Proper Training

Many problems associated with unsafe use of agro-chemicals result from inadequate training. College tutors instructing students in agro-chemical use should have adequate information and skill about these chemicals, their effect, environmental fate and toxicity. This knowledge should be passed onto students and other workers associated with agrochemicals handling and storage at the college.

c) Use of protective gear

Students and tutors using agro-chemicals should have safety wear such as overall, a hat, gloves, eye protection or a respirator and good quality rubber boots.

d) Safe Storage

The college must provide a safe properly ventilated store for storage of agro-chemicals. Pesticides should be stored safely away from the college's foods (posho and beans) store.

e) Pesticide poisoning

Misuse or mishandling agro-chemicals can result in poisoning mostly through occupational exposure. Other pesticide poisoning can be accidental contract. The college should have capability to provide First Aid for all chemicals it uses and quick means to transport victims to nearest healthcare facility. Excess pesticides can enter the food chain through grazing areas, sprayed crops or contaminated watercourses. Proper dosages should therefore be ensured.

Table below shows likely effects of improper pesticides management.

Table A13.2: Effects of improper pesticides management

Nature of Problem	Brief description of problem
Public health	<ul style="list-style-type: none"> • Through ground water pollution • Through food contamination • Through air pollution • Through occupation • Through drinking contaminated water
Drinking water contamination	<ul style="list-style-type: none"> • No water treatment in villages • Inadequate treatment in towns • Most water ways/bodies are source of drinking water • Using chemical containers for drinking water
Air Pollution	<ul style="list-style-type: none"> • Through generation of fumes • Through burning of pesticide • Through spraying • Through dusting
Pollution of Inland Waterways	<ul style="list-style-type: none"> • Use of pesticides near water ways • Washing containers in water ways • Direct discharge of agrochemicals into water bodies
Pesticide residues in food	<ul style="list-style-type: none"> • Improper post-harvest handling • Extent of food contamination not known • Excessive and frequent use of pesticides • Pesticides discharged into water bodies accumulate in fish
Occupational Health of agricultural workers	<ul style="list-style-type: none"> • Lack of awareness of dangers associated with pesticides • Most rural users Lack safety gears • Lack of adequate information • Safety gears are expensive, uncomfortable hence reluctant to put on
Ground water pollution	<ul style="list-style-type: none"> • Through infiltration of contaminated water
Storage/Disposal of	<ul style="list-style-type: none"> • Lack of adequate storage facilities

Obsolete pesticides and containers	<ul style="list-style-type: none"> • Lack of adequate logistics in distribution of pesticides • Importation of excess than needed • Lack of adequate disposal facilities
Soil contamination	<ul style="list-style-type: none"> • Through spraying • Through dusting • During transportation • Disposal of obsolete chemicals • Pesticide residues • Through disposal of packaging materials
Unknown pesticide importation and distribution	<ul style="list-style-type: none"> • Varieties are too many to monitor • Due to locally re-packed pesticides • Lack of quality control guide lines on packaging
Pesticide accidents during transport	<ul style="list-style-type: none"> • Due to spills on board • Careless driving/riding • Transport with other products

f) Proper use of pesticides

Pesticides should be applied by directed, or following procedure below:

1. Read pesticide label.
2. Check and calibrate application equipment for safety and efficiency.
3. Check the weather conditions. Unless otherwise indicated on the product label, avoid pesticide use if it is raining or expected to rain within 24 hours, or wind speed is very high
4. Post notification signs at all entrances to sites associated with pesticide applications.
5. List re-entry specifications on the signs if required by the label.
6. Apply material according to the label.
7. Record pesticide application on application forms.
8. Remove signs when the liquid pesticide has dried, unless indicated otherwise on the label.
9. Use safety and protection wear/ gear such as:
 - Helmet or cloth cap
 - Safety spectacles, goggles or face shield (attached to helmet)
 - Dust or light fume masks
 - Emergency vapor masks or half-face respirators with organic vapor cartridges
 - Nitrile rubber or neoprene gloves or gauntlets
 - Overalls
 - Nitrile rubber or neoprene aprons
 - Strong rubber or neoprene boots

g) Records keeping

Bukala College should keep records of all agro-chemicals bought, stored and quantities/ types of chemicals taken away for offsite disposal. Information to document includes:

- Name of pesticide
- Quantity of pesticide
- Concentration (%) of active ingredient

h) Disposal options available for expired agro-chemicals from Bukalasa ATC

Disposal of Luwero Industries LTD

Luwero Industries LTD located at the Nakasongola Military Base is a Ministry of Defense facility licensed to destroy a diversity of hazardous waste. The facility currently charges UGX 1500/= per Kilogram of pesticides incinerated.

Use of hospital incinerators

Hospital incinerators have been identified as potential solutions but they do not meet the required standards. It is recommended that such incinerators SHOULD NOT be used for solid pesticides, agro-chemicals containing chlorine, sulphur or nitrogen, agro-chemicals containing metals and large quantities of agro-chemicals in general. They should only be considered for relatively small quantities of liquid pesticides, provided that the design, temperature and residence time are adequate.

Use of locally fabricated Incinerators

Makerere University fabricates small incinerators e.g. MAK IV incinerator that designed for burning of medical waste. The stainless steel machine uses waste paper as fuel and burns at up to about 1200 degrees Celsius and can burn 5 kilos of waste in about 25 minutes.

Annex 14: Photographs showing prevailing conditions at UTCs visited



Photo 1: A laborer making earth bricks on UTC Elgon land. The proposed project may change such land uses by local people surrounding the college

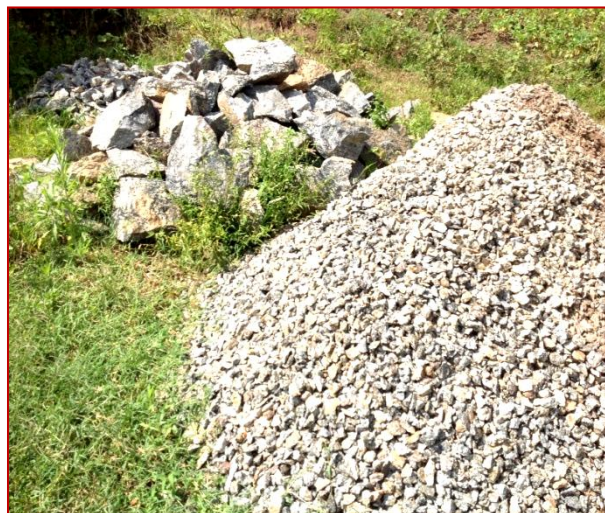


Photo 2: Some college staff and local people who engage in stone quarrying on UTC Elgon's land may lose access to economic resources when such land is developed.



Photo 3: Cultivation such as in this garden owned by a staff of UTC Bushenyi may be cease if the project is implemented on land currently used for such purposes.



Photo 4: Dilapidated structures at Bukalasa Agricultural training College.



Photo 5: Contamination of a stream flowing through UTC Elgon's land is one of the potential impact if construction waste is not properly managed.



Photo 6: Land use change following project implementation may stop activities on college land, such as stone quarrying by local communities.



Photo 7: Subsistence farming on UTC Elgon Land



Photo 8: This A' level student, a son to a staff member of UTC Elgon, obtains school fees from quarrying stone during holidays



Photo 9: Some of UTC Elgon land is used for livestock grazing by the local community



Photo 10: Old staff houses at UTC Bushenyi



Photo 11: Cattle grazing on UTC Bushenyi land.



Photo 12: Staff houses under construction at UTC Bushenyi



Photo 13: Old but relatively good-condition staff houses at UTC Bushenyi



Photo 14: A staff's banana plantation at a construction site at UTC Lira