



**AFRICAN CENTER OF EXCELLENCE IN
AGROECOLOGY AND LIVELIHOOD SYSTEMS**



Environment and Social Management Plan

AFRICAN CENTRE OF EXCELLENCE IN AGRO-ECOLOGY
AND LIVELIHOOD SYSTEMS
(ACALISE)

Uganda Martyrs University

January 2016

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List of Abbreviations/Acronyms

ACALISE	African Centre of Excellence in Agro-ecology and Livelihood Systems
ACE	African Centre of Excellence
AFLEG	African Forest Law Enforcement and Governance Agreement
CAADP	Comprehensive African Agriculture Programme
CBD	Convention on Biological Diversity
EAC	East African Community
EIA	Environment Impact Assessment
EOAI	Ecological Organic Agriculture Initiative
ESD	Education for Sustainable Development
ESCMC	Emergency, Security, and Crisis Management Committee
ESMP	Environment and Social Management Plan
GMO	Genetically Modified Organisms
NARO	National Agricultural Research Organization
NEMA	National Environment Management Authority
NGO	Non-Governmental Organization
NOGAMU	National Organic Agricultural Movement of Uganda
PI	Principal Investigator
PPP	Public Private Partnership
PELUM	Participatory Ecological Land Use Management Association
SDGs	Sustainable Development Goals
SADC	Southern African Development Community
UMU	Uganda Martyrs University
UNBS	Uganda National Bureau of Standards

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Part I: Basic information about the Institution and overview of the ACE II Project

A. Institution

Name of Institution	Uganda Martyrs University
Physical Location/Country:	Main campus is located at Nkozi, (GPS: 0° 00'58.09"N 32 02'40".20"E Elevation 3949ft) Mpigi district, 80km along Kampala-Masaka Highway P. O. Box 5498, Kampala, Uganda
Institutional Legal status and focus:	Uganda Martyrs University (UMU) is a State-chartered private not-for-profit University, owned by the Uganda Episcopal Conference. Mission: To provide quality higher education, training and research for the betterment of society guided by ethical values. Vision: To be a University that is nationally and internationally recognized for its excellence in teaching, learning, research, advancement of knowledge and community engagement. Strategic Focus: <ul style="list-style-type: none"> - Ethics and integrity to ensure the formation of the whole person in body, mind and soul/character. Ethics is mainstreamed in all academic programmes of the University. - Environmental sustainability and mainstreaming education for sustainable development - High quality/excellence in all services Guiding Principles: <ul style="list-style-type: none"> - Transparency, - Accountability, - Reliability, - Action based on Institutional Ethos, - Quality
ACE II Name:	African Centre of Excellence in Agro-ecology and Livelihood Systems (ACALISE)
Cluster:	Agriculture
Sub-Priority Area:	Climate and Environment-smart Agriculture

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Contact Details

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B. Project description

The establishment of the Centre of Excellence in Agro-ecology and Livelihood Systems (ACALISE) is in line with the strategic objectives and needs of the University (cf. University Charter 2005, Strategic Plan 2010-2020), the State (cf. Strategic Plan of the Republic of Uganda – Vision 2040), the region and international agenda (Comprehensive African Agriculture Development Programme (CAADP), Agenda 21, Sustainable Development Goals(SDGs), and the African Union’s Ecological Organic Agriculture Initiative (EOAI)).

Uganda Martyrs University (UMU) is establishing the Regional Centre of Excellence in Agro-ecology and Livelihood Systems to *widen and improve the production of a high level and well-motivated critical mass of Agro-ecology and livelihood systems experts to impact on prevailing agricultural, nutritional, developmental, and environmental challenges in the region.* This is in line with the overall Project Development Objective of the ACE II, namely, *to strengthen selected Eastern and Southern African higher education institutions to deliver quality post-graduate education and build collaborative research capacity in the regional priority areas.*

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This will be carried out through:

1. Training of a new breed of M.Sc. and PhDs envisioned to carry out relevant research in Agro-ecology and livelihood systems for innovation in the region and beyond
2. Integration of ecological approaches in Agriculture and related disciplines in the region to stimulate sustainable development and better livelihoods
3. Initiation of critical regional collaborations for strengthening multidisciplinary and multi-sectoral research for development.
4. Promotion of Public Private Partnerships (PPP) for innovation dissemination and impact enhancement in Agro-ecology for better livelihood strategies. ACALISE will promote action research, student-cantered learning techniques including problem solving, experiential research but also experimental methods to foster innovations in the field.
5. Creation of demonstration farms to facilitate the provision of hands-on skills and sustainable agricultural methods and technologies to the neighbouring communities involved in agriculture to enhance sustainable livelihoods and improve their standards of living and quality of life.

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C. Project beneficiaries

The project beneficiaries include: 1) Students in participating universities and their partner institutions in the region, 2) Faculty and Staff in the ACEs, 3) Employers and industries who will absorb the highly skilled personnel, 4) Communities, particularly rural women and the youth, that will benefit from world class extension services, technologies, and demonstrations, 5) Regional Institutions such as EAC and SADC that will benefit from improved capacity, and 6) Relevant agricultural and other disciplines where new knowledge and technologies will be added.

D. Institutional implementation arrangement

UMU will be in charge of the project. The central administration will assist with the fiduciary tasks. The ACE team led by the Centre Leader and deputized by the Principal Investigator (PI) will provide leadership and management. The University is responsible for the implementation of environmental and social management plan under the supervision of the National Review Committee, IUCEA, and World Bank.

E. Project Environmental Category, screening, and management

The ACALISE Project could be categorized as B, namely, the proposed project is expected to have little or no potential adverse environmental and social impacts. This is due to the fact that:

- i. UMU, the host of ACALISE, by policy may only involve herself in environmentally friendly and sustainable activities as per both the University Charter and the University's Strategic Plan:
 - a. The fifth fundamental objective of UMU as stipulated by the Charter is "to engage the community in sustainable development activities" (University Charter 2005, Cap II, 10f).
 - b. Environmental protection and mainstreaming of Education for Sustainable Development (EDS) is a key core value of the University: "*The University commits itself to sound environmental management practices. It recognizes itself to be part of the whole biotic community and wishes to live in harmony with its environment. The university is committed to the process of mainstreaming Education for Sustainable Development.*" (Strategic Plan 2010-2020: Cap 1.6C).
- ii. By design Agro-ecology is an environment-friendly technology that requires adoption of environment and climate smart methods, technologies, and activities, in its implementation.
- iii. Adverse environmental and social impacts are an ethical issue; ethics and integrity are part and parcel of all academic programmes and activities of UMU. The modules of Ethics of the Environment and Sustainable Development, Bio and Environmental Ethics, Development Ethics, Ethics and Social Accountability, among others, are in place to guide development activities and projects to enhance environmental integrity or mitigation of negative effects and promotion of sustainable socio-economic development of communities.
- iv. Limited modifications of existing structures and minor constructions will be undertaken. Moreover, only land already owned by the University and her partners will be used, guided by relevant national, local, and University policies. [Back to Contents](#)

F. Institutional Capacity Building on adverse environmental and social management impacts

UMU propagates the protection of the environment and enhancement of sustainable development; therefore, there is a need for continuous capacity building in ESMP. Environmental consciousness is in the DNA of staff.

G. Institutional and legal framework

Though the project is likely to generate minimum negative environmental impacts, we are cognizant of the relevant existing laws and regulations of Uganda. The National Environment Act 1998, establishes the National Environment Management Authority (NEMA) as the overall body, charged with the management of environmental issues and provides for sustainable management of the environment. It provides for environmental monitoring and impact assessment; environmental audit; environmental restoration orders and improvement notices; environmental easements; environmental performance bonds; licensing and standard setting; use of economic and social incentives; civil and penal sanctions, Policy Committee on Environment; the National Environment Fund and a collaborative framework with lead agencies and other stakeholders in environmental management. ACALISE has partnered with NEMA and other relevant environmental institutions and recognizes the need for socio-economic development to be undertaken in such a manner that avoids environmental degradation. In particular, the following instruments are deemed relevant and will guide the operations of ACALISE:

- *The National Environment (audit) regulations 2009*: These Regulations prohibit the carrying out of environment audits without due certification and registration, except if the person is an environmental inspector. It also provides for the preparation of environmental audit reports; require owners or operators of facilities to establish environmental management systems; provide for enforcement environmental audits; and encourage voluntary environmental audits and compliance agreements to aid facility compliance to environmental requirements.
- *The National Environment (minimum standards for management of soil quality) regulations*: establish and prescribe minimum soil quality standards to maintain, restore and enhance the inherent productivity of the soil in the long term. They provide the minimum standards for the management of the quality of soil for specified agricultural practices; establish criteria and procedures for the measurement and determination of soil quality and measures and guidelines for soil management.
- *The National Environment (minimum standards for discharge of effluents into water or land) regulations*: These Regulations prohibit discharge of effluent or waste on land or into the aquatic environment contrary to established standards and without a waste discharge permit. They provide for the general obligation to mitigate pollution.
- *The National Environment (Access to genetic resources and the benefits sharing regulations 2005)*: apply to access to genetic resources or parts of genetic resources, whether naturally occurring or naturalised, including genetic resources bred for or intended for commercial purposes within Uganda or for export, whether in in-situ conditions or ex-situ conditions.

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- *The National Environment (wetlands, riverbanks and lakeshores management) regulations:* provide for the protection of wetlands; their conservation and wise use; inventorying of wetlands; and wetland use permits for regulated activities. They also provide for protection of riverbanks and lakeshores zones (100-200 metres from the low water mark for lakes and 30-100meters from the highest water mark for rivers).
- *The National Environment (Noise standards and control) regulations:* ensure the maintenance of a healthy environment for all people in Uganda, the tranquillity of their surroundings and their psychological wellbeing by regulating noise levels. Prescribe acceptable noise levels for different facilities and activities; provide for the control and mitigation measures for noise.
- *The National Environmental Forestry and Tree Planting Act:* promote conservation, sustainable management and development of forests for the benefit of the people of Uganda. The Act establishes forest reserves and provides for collaborative forest management and for the Environmental Impact Assessment process for developments intended in forest reserves. It also establishes a tree fund and licenses.
- *The National Environment Waste Management regulation, 1998:* applies to movement, disposal and storage of hazardous and non-hazardous waste. The Regulations also provide for conditional licensing of transportation of waste from one district to another. It prohibits the disposal of untreated waste into the environment.
- *The National Environment Impact Assessment Regulations, 1998:* deals with the environmental impact assessment (EIA) process, EIA review processes (general public comments and public hearings, and the decision of the Executive Director of the National Environment Management Authority in respect of the grant, rejection or cancellation of an EIA certificate).
- *The National Environment Water, Act:* provides for the use, protection and management of water use and supply. Important provision in this act include water rights; planning for water use; control on the use of water resources; water easements; and control over water works and water use.
- *The Environment Mining Act:* vests the ownership and control of all minerals in Uganda and provides for the acquisition of mineral rights and other related rights. It also provides for environmental protection standards, environmental restoration plans and environmental performance bonds in accordance with the Environment Act.
- *The Environment Ozone Depletion and Substances Products Regulations:* regulates production, trade and use of controlled substances and products; provides for a system of data collection to facilitate compliance with relevant reporting requirements under the Montreal Protocol on Substances that deplete the ozone layer; promotes the use of ozone-friendly substances, products, equipment and technology; and ensure the elimination of substances and products that deplete the ozone layer. These regulations also provide for controlled products, controlled substances and prohibition dates; application for licenses to import controlled substances and export them; declaration by the end user of controlled substances or products; and the need for records to be maintained for controlled substances.

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- *The National Environment Hilly and Mountainous Areas Regulations*: facilitates sustainable utilization and conservation of resources in mountainous and hilly area. They promote the use of soil conservation and restrict the use of these areas (including cattle grazing), afforestation and reforestation, and prevent the introduction of alien or exotic species. In addition to the aforementioned, ACALISE recognizes the existence of by-laws and ordinances of the local government(s), the University Charter and the University Strategic Plan 2010-20, and the relevant World Bank's Safeguard Policies – OP 4.01 (Environmental Screening), OP 4.04 (Natural Habitats), OP 4.09 (Pest Management) and other multilateral agreements, bio-diversity protocols, pesticides and hazardous chemicals protocols, cultural and natural heritage convention:
- Uganda is a signatory of several international and regional agreements and conventions, which are relevant to conservation of the environment among which *the Convention on Biological Diversity (CBD)*, the associated Cartagena Protocol on bio piracy, and the African Forest Law Enforcement and Governance Agreement (AFLEG), are associated regulatory frameworks that have domesticated application through the Lusaka Agreement on Cooperative Enforcement Operations Directed at Illegal Trade in Wild Fauna and Flora (1994).
- The University is cognizant of the various pesticides and hazardous chemicals protocols including the Basel Convention on the Control of Trans boundary Movement of Hazardous Waste and its Disposal, 1989, Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade and the Stockholm Convention on Persistent Organic Pollutants regulating the use of pesticides and hazardous chemicals.
- Though this action will not be implemented in cultural sites and areas of universal value, conservation of natural and cultural heritage is key principle, which will be observed by all members of the consortium.

In the same spirit strong collaborations have been established with the relevant line ministries and departments namely, Ministry of Agriculture Animal Industry and Fisheries, Ministry of Water and Environment, Ministry of Education and Ministry of trade and Industry, and the Office of the Prime Minister.

H. Public consultation process

This is an ongoing activity and included pre-project consultations and consultations during the implementation of the project. Relevant ACALISE stakeholders include students and staff of UMU, farmers, academicians, NGOs (e.g. NOGAMU, Environmental Alert) public and private institutions, were consulted using different approaches (email, telephone, face to face, and workshops) in the identification of the environmental and social issues and potential solutions during the preparation of the pre-project stage. The last consultative meeting on environment and agriculture was held on 30 October 2015. Issues of concern included among others, pollution, use of chemicals in meat and milk, biosafety issues, gender discrimination, pests and diseases, environment and agronomic practices, climate change, and loss of biodiversity. Possible mitigation measures were suggested and noted. Series of consultations (internal and external) will still be conducted to identify the training needs, development of relevant curriculum, identification of research priorities, and best dissemination of research outputs.

I. EMP Monitoring Plan of activities

An Environmental Monitoring Plan (EMP) has been elaborated under this section for purposes of mitigating potential environmental and social impacts including pollution (air, water and soil), increase pest and disease incidence, biodiversity loss, accidents, increase carbon footprint, biosafety issues, and noise. [Back to Contents](#)

Table 1: Summary of the methods to monitor and key activities to mitigate the identified adverse impacts

Key Activity	Potential Impacts	Mitigation measures	Monitoring method	Frequency of monitoring	Provisional Monitoring Cost in USD
Use and storage of lab equipment and chemicals	Physical injury, soil and air pollution	Use of protective gears, Proper waste disposal including incineration according to regulation	Inspection by skilled personnel	Routine	6000
Importing animal breeds	Pest and disease incidence	Pre-inspection before importation of animal breeds	Inspection by skilled personnel	On importation	4000
Construction and rehabilitation	Increase in dust and debris	Proper disposal of debris, recycling of materials, watering to reduce dust, Use of protective gears	Site inspection	Routine	3000
	Noise pollution	Working on special/located hours, no excessive idling of vehicles and equipment			
Work on the University's Eco-site	Water Pollution	Minimum disturbance for flora and fauna, use of ecological methods	Water analysis by experts, site inspection ; biodiversity audit	Routine	6000
	Proliferation of certain species				
Movement / and transportation of people	Accidents, c-footprint	Use safe mean, and minimum distance possible, competent drivers and regularly serviced vehicles	Pre-inspection of vehicle	Routine	6000
		Safety awareness campaigns			
Food processing unit (upgrading and restocking of the farm)	Pollution	Use of protected gears, Proper waste disposal including incineration according to regulation	Inspection by skilled personnel (UNBS)	Routine	5000
		Certification by UNBS			
Land preparation and clearing	Soil erosion and water pollution	Land clearing will be carried out during dry season, use of best soil and water conservation practices to minimise water pollution	Inspection	Ad hoc	6000
Application of fertilisers and pesticides	Soil and Water pollution	Appropriate application of fertiliser and pesticides by skilled staff, Use of protective gears	Inspection and water testing	Routine	6000
Animal rearing	Zoonotic diseases such as brucella, FMD, avian influenza	Biosafety measures, early warning systems, Use of protective gears	Inspection	Routine	3000

Crisis and Emergency Responses

UMU has in place mechanisms to handle crisis and emergency issues. The purpose of this emergency response mechanism is primarily to safeguard lives and secondarily to reduce property damage of stakeholders. An Emergency, Security, and Crisis Management Committee (ESCMC) headed by the Director Human Resources is charged with the responsibility to rapidly respond to any emergency (cf. University Statutes, X, 1.C). ACALISE will have a Technical Emergency Committee which will liaise with the ESCMC to respond to any emergency or crisis.

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Part II: EMP Checklist for Activities

S/N	Centre Name	ESMP required?	Issues	Mitigation Measures
	<p>Country: Uganda</p> <p>Centre Name: African Centre of Excellence in Agro-ecology and Livelihood Systems</p>	Yes	<p>New construction</p> <p>Excavation impacts and soil erosion</p> <p>Increase sediment loads in receiving waters</p> <p>Site specific vehicular traffic</p> <p>Increase in dust and noise from demolition and/or construction</p> <p>Construction waste</p>	<p>Air Quality</p> <p>(a) During interior demolition use debris-chutes above the first floor</p> <p>(b) Keep demolition debris in controlled area and spray with water mist to reduce debris dust</p> <p>(c) Suppress dust during pneumatic drilling/wall destruction by ongoing water spraying and/or installing dust screen enclosures at site</p> <p>(d) Keep surrounding environment (sidewalks, roads) free of debris to minimize dust</p> <p>(e) There will be no open burning of construction / waste material at the site</p> <p>There will be no excessive idling of construction vehicles at sites</p>
				<p>Noise</p> <p>(a) Construction noise will be limited to restricted times agreed to in the permit</p> <p>During operations the engine covers of generators, air compressors and other powered mechanical equipment should be closed, and equipment placed as far away from residential areas as possible</p>
				<p>Water Quality</p> <p>(a) The site will establish appropriate erosion and sediment control measures such as e.g. hay bales and / or silt fences to prevent sediment from moving off site and causing excessive turbidity in nearby streams and rivers.</p>

				<p>Waste Management</p> <p>(a) Waste collection and disposal pathways and sites will be identified for all major waste types expected from demolition and construction activities.</p> <p>(b) Mineral construction and demolition wastes will be separated from general refuse, organic, liquid and chemical wastes by on-site sorting and stored in appropriate containers.</p> <p>(c) Construction waste will be collected and disposed properly by licensed collectors</p> <p>(d) The records of waste disposal will be maintained as proof for proper management as designed.</p> <p>Whenever feasible the contractor will reuse and recycle appropriate and viable materials (except asbestos)</p>
		Not Apply	<p>Handling / management of medical waste</p> <p>Clinical waste, sharps, pharmaceutical products (cytotoxic and hazardous chemical waste), radioactive waste, organic domestic waste, non-organic domestic waste</p> <p>On site or off-site disposal of medical waste</p>	<p>Infrastructure for medical waste management</p> <p>(a) In compliance with national regulations the contractor will insure that newly constructed and/or rehabilitated health care facilities include sufficient infrastructure for medical waste handling and disposal; this includes and not limited to:</p> <ul style="list-style-type: none"> ▪ Special facilities for segregated healthcare waste (including soiled instruments “sharps”, and human tissue or fluids) from other waste disposal: <ul style="list-style-type: none"> i. Clinical waste: yellow bags and containers ii. Sharps – Special puncture resistant containers/boxes iii. Domestic waste (non-organic): black bags and containers ▪ Appropriate storage facilities for medical waste are in place; and ▪ If the activity includes facility-based treatment, appropriate disposal options are in place and operational

		Yes	<p>Building rehabilitation</p> <p>Site specific vehicular traffic</p> <p>Increase in dust and noise from demolition and/or construction</p> <p>Construction waste</p>	<p>Air Quality</p> <p>(a) During interior demolition use debris-chutes above the first floor</p> <p>(b) Keep demolition debris in controlled area and spray with water mist to reduce debris dust</p> <p>(c) Suppress dust during pneumatic drilling/wall destruction by ongoing water spraying and/or installing dust screen enclosures at site</p> <p>(d) Keep surrounding environment (sidewalks, roads) free of debris to minimize dust</p> <p>(e) There will be no open burning of construction / waste material at the site</p> <p>(f) There will be no excessive idling of construction vehicles at sites</p> <p>(g) As much as feasible debris and other waste will be re-used or recycled.</p>
		Yes	<p>New construction</p> <p>Excavation impacts and soil erosion</p> <p>Increase sediment loads in receiving waters</p> <p>Site specific vehicular traffic</p> <p>Increase in dust and noise from demolition and/or construction</p> <p>Construction waste</p>	
		Yes	<p>Building rehabilitation</p> <p>Site specific vehicular traffic</p> <p>Increase in dust and noise from demolition and/or construction</p>	<p>Noise</p> <p>(a) Construction noise will be limited to restricted times agreed to in the permit</p> <p>During operations the engine covers of generators, air compressors and other powered mechanical equipment should be closed, and equipment placed as far away from residential areas as possible</p>

			Construction waste	<p>Waste Management</p> <p>(a) Waste collection and disposal pathways and sites will be identified for all major waste types expected from demolition and construction activities.</p> <p>(b) Construction waste will be collected and disposed properly by licensed collectors</p> <p>(c) The records of waste disposal will be maintained as proof for proper management as designed.</p>
		Yes	<p>6. Vegetation</p> <p>- Vegetation clearing resulting in loss of habitat, species diversity and population levels</p>	<p>(a) No siting and excavation in sensitive habitats</p> <p>(b) Careful planning and selection of sites</p> <p>(c) As much as possible preserve, restore, and enhance valuable habitats and species diversity</p>

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Annex A: Public consultations

Country – Centre of Excellence	Date of consultative meeting	Stakeholders present	Issues raised	Response to the issues
Republic of Uganda ACALISE	30th October, 2015	NARO, NOGAMU, KULIKA, PELUM, CARITAS, Hoima organic, Palisa farmers association, Mubende farmers; group, Uganda Catholic management and training institute, Agro-ecology master students, PhD student	Environmental degradation, pollution by agro-chemicals use of chemical in food, agronomic practices, biosafety, post-harvest interval, introduction of Genetically Modified Organisms (GMO)	Sensitization on environmental friendly practices Promotion of ecological organic agriculture practices
	30th October, 2015	UMU students	Pollution due to agro-chemicals, biosafety, post-harvest intervals, food security, food safety, curriculum review issues,	Sensitization on environmental friendly practices and biosafety, development and review of curricula
	December 2014	District officials and local communities	Control of pesticides, soil fertility management, water conservation, post-harvest handling; deforestation *,confirm income	Reforestation, irrigation, agroforestry, Field hygiene, use of organic pesticides, ecological organic agriculture practices
	11 th January 2016	UMU management	Emission due to the energy supply/ (diesel generator)	Environmental friendly type of energy (solar)
	11 th January 2016	Wildlife club of Uganda,	Contamination of ground water, emission of pollutants and noxious gases. Bio-diversity degradation	Sensitization on environment friendly practices

* UMU Agro-ecology in practice evaluation consultative report

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