



Proposal to the African Elephant Fund

- 1.1 Country: Uganda
- 1.2 Project Title: Human-Elephant Conflict Reduction in Murchison Falls National Park, Uganda.
- 1.3 Project Location: Murchison Falls National Park
- 1.4 Overall Project Cost: USD 125,525
AMOUNT Requested from African Elephant Fund: USD 88,760
- 1.5 Project Duration: 05 Months
- 1.6 Project Proponent: Uganda Wildlife Authority (UWA)
- 1.7 Name of Project Supervisor: Besigye Samuel
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- 1.12 Date proposal submitted: 16th November 2017

2.0 Project Summary: (not more than 250 words)

The size of Murchison Falls National Park (MFNP) is 3,840 km². This is the biggest and oldest National Park in Uganda. During Financial Year 2016/2017; MFNP contributed 15% of the total revenue of UWA. This will increase to 20% in the next five years. However, 41.2% of the problem animal incursions on UWA estate originate from MFNP (UWA, 2017). This is due to population increase in the neighbouring District of Kiryandongo from 187,707 people in 2002 to 266,197 people in 2014 (UBOS, 2014).

To mitigate Human-Elephant Conflict, the project will implement the following activities:

1.0 Excavation of an elephant trench

15 km trench will be excavated as a physical barrier to elephants.

2.0 Biological and organic deterrents to stray elephants

2.1 Beehives

Bees are biological barriers to elephants. The project will procure 500 Kenya Top Bar hives and lay them along the boundary of MFNP.

2.2 Chilli (*Capsicum frutescens*).

50 Kilogrammes of Chilli will be procured. Chilli concoction and blocks are organic deterrents to elephants. The project will also support communities to grow Chilli (*Capsicum frutescens*).

3.0 Wildlife Scouts capacity building.

100 Wildlife Scouts will be identified and selected. They will be supported to acquire skills, knowledge and information about Human-Elephant Conflict management. The project will also provide the Scouts with uniforms and basic working equipment.

4.0 Raising awareness

10 Radio Talk Shows about Human-Elephant Conflict Management will be hosted a local FM radio station. 2,000 flyers and 1,000 brochures will be disseminated to communities living adjacent to MFNP.

3.0 Which Priority Objectives and Activities (there may be more than one) in the African Elephant Action Plan does this project fall under? (For ease of reference, Priority Objectives are attached under Appendix 1)

Priority Objectives and Activities in the African Elephant Action Plan under which this project falls:

Objective 3: Reduced Human-Elephant Conflict (HEC)

Activity 3.1.1: Establish a database using existing and new data on the types, extent, causes and impacts of HEC and mitigation measures for such conflicts.

Activity 3.1.2: Research and pilot different mitigation strategies to reduce HEC develop guidelines accordingly.

Activity 3.1.3: Train and equip wildlife officers and local communities to ensure that appropriate HEC management approaches are implemented.

Activity 3.1.4: Undertake appropriate land use planning, including harmonization across sectors and among range States.

Activity 3.1.5: Evaluate the causes and socio-economic consequences of human elephant interactions.

Activity 3.2.1: Compile and disseminate information on HEC mitigation measures.

Activity 3.2.2: Develop plans to manage HEC under different scenarios, integrating both local communities and other stakeholders in participatory planning.

Activity 3.2.3: Harness traditional/indigenous knowledge and other deterrent methods for HEC, including emerging technologies.

Objective 4: Increased Awareness on Elephant Conservation and Management of Key Stakeholders that include Policy Makers, Local Communities among other Interest Groups.

Activity 4.1.1. Consolidate and disseminate reliable information on the conservation and management of the elephant for the local communities, scientific and political audiences.

Activity 4.1.2 Develop and implement awareness programs targeting schools, local communities, policy makers, NGOs and business sectors.

Activity 4.1.3 Develop and implement a communication strategy to justify management decisions and actions.

Activity 4.1.4. Build appropriate capacity to implement the above.

Activity 4.2.2 Incorporate relevant traditional beliefs and practices into conservation and management of the African elephant.

Activity 4.3.1. Develop and implement information, education and communication strategies on the conservation of the African elephant.

Objective 7: Improved Local Communities' Cooperation and Collaboration on African Elephant Conservation.

Activities 7.1.1 Identify and assess needs for the full participation of local people to conserve the African elephant.

Activity 7.1.4. Develop innovative incentive schemes that increase benefits to local communities, while simultaneously reducing costs of living with elephants.

Objective 8: African Elephant Action Plan is Effectively Implemented.

Activity 8.1.2. Pooling of resources (voluntary contributions of capacity, space, and funding) from range States to complete the Action Plan.

Activity 8.1.3. Prioritize interventions in the African Elephant Action Plan for fundraising and subsequent implementation.

Activity 8.1.4. Estimate the cost of activities and seek funding sources.

Activity 8.1.5. Develop a mechanism to carry forward the plan, ensuring sustainability.

Activity 8.1.6. Establish mechanisms for coordination, collection and use (in a sustainable manner) of funds for implementation of the African Elephant Action Plan.

Activity 8.2.1. Establish clear and measurable targets for each objective and strategy.

Activity 8.2.2 Establish institutional arrangements for monitoring the implementation of the African Elephant Action Plan and on remedial measures in case of little or no progress.

Activity 8.2.3. Implement the actions called for in the African Elephant Action Plan and report on these through a regular transparent reporting mechanism through existing mechanisms, for example; CITES bi-annual reporting.

Activity 8.3.2. Use the African Elephant Action Plan as a fundraising tool to encourage donors to commit funds to the African Elephant Fund.

4.0 Project Rationale – why is this project necessary and urgent? What threats face this elephant population (give, for example, what information you have regarding population details, trends in population (downward or upward), ivory seizure information, details about levels of poaching, human/elephant conflict, etc.).

The size of Murchison Falls National Park (MFNP) is 3,840 km². This is the biggest and oldest National Park in Uganda. During the Financial Year 2016/2017; MFNP contributed 15% of the total revenue of UWA. This is expected to increase to 20% in the next five years. However, 41.2% of the problem animal incursions on UWA estate originate from MFNP (UWA, 2017). This is due to population increase in the neighbouring District of Kiryandongo from 187,707 people in 2002 to 266,197 people in 2014 (UBOS, 2014). The increasing human population in the areas surrounding PAs has led to increase in settlements and crops fields which are right at the edge of the National Park.

Overtime, MFNP management has witnessed increased crop raids on average of 6 per night in different locations and involving 1 to over 10 elephants. The conflict is expected to escalate with the steady increase in elephant population from about 800 in 1990 to about 1400 in 2015. The conflicts erode the relationships between MFNP management and the communities, and the politicians consistently demand for total eradication of crop destruction problem through wanton killing of elephants involved or else Government compensates for the losses. In the last 2 years, MFNP lost 3 elephants that were injured during crop raids.

Government efforts to increase wealth through agricultural production have been undermined by Human-Elephant Conflict which is estimated at a loss of 1,000,000 shillings per acre of crop destroyed. Over 1000 acres of assorted crops are destroyed annually around MFNP translating to losses of over Uganda shillings 1,000,000,000 (USD 274,571).

Crop raids expose the elephants to poaching. MFNP management has in the last 1 year confiscated 3 automatic weapons in the neighbouring communities. These weapons were alleged to have been targeting ivory of elephants which stray in the communities to raid crops. Bottles of poisonous substances have also been recovered in community gardens inserted in pawpaws and pineapples. These are the elephants' favourite fruits. These are practices have a big potential to wipe out the whole herd instantly. Interventions aimed at preventing the elephants from getting out of the MFNP are therefore necessary to protect these gentle giants. One such intervention is excavating trench to deter them.

5.0 Detailed Proposal – including activities to be carried out, milestones (at least quarterly milestones), timelines, equipment to be purchased, reporting procedures, etc. (not more than 1000 words). It will be helpful in evaluating this Project Proposal if you to divide it into Phases such as Planning; Procurement; Implementation; Evaluation and Reporting

Should include anticipated benefits (including benefits to the conservation and management of elephant populations and communities) and outputs from the project, and how the project will be monitored and evaluated.

This project will be implemented along the boundary of the MFNP in Kiryandongo District starting from Karuma Bridge on Victoria Nile and extending southwards. (see map attached as annex) The project will have the following phases; Mobilization of funds (proposal generation), mobilization of community, procurement of tools and equipment, implementation, monitoring and evaluation and reporting.

Phase 1: Mobilisation of funds.

A proposal for funding will be submitted to AEF. UWA will also mobilize funds to cater for staff time during monitoring and supervision of the project implementation. The deliverables will include, funding proposal submitted to AEF and budget line in UWA annual operation plan to pay for the staff time during community mobilisation and implementation of this project.

Phase 2: Mobilisation of community.

The project will be implemented by community providing direct labour for trench excavation. The project span of 15km traverses 5 villages. The community will be mobilised, sensitised and organised in 5 groups (one per village) to do the work. The community will elect village leaders who will allocate the task on daily basis and also ensure the storage and safety of the tools. Minutes of meetings held, number of community groups formed will enhance the evaluation of this phase. Mobilisation will be accomplished within the 3rd month of the project (1st month after receiving funding) The PA management will also assign staff to supervise this project under overall guidance of project manager/supervisor.

Phase 3: Procurement of tools.

The following tools will be required for the project; hoes, spades, mattocks, pangas (machetes), axes, spades and tape measure. These will be procured from pre-qualified service providers under the Public Procurement and Disposal of Assets Act. This will be through issuance of Local Purchase Orders to the supplier(s) for the quantities required. The tools will be delivered on site where stores register will be maintain for the tools received and issued out. Copies of purchase orders, payment vouchers, stores ledgers and on-site tools allocation register are among the documents to be reviewed during evaluation. Procurement of the tools will be accomplished during the 3rd month of the project. (1st month after receiving funding)

Phase 4: Project implementation.

1.0 Trench Excavation

This project aims at establishing human elephant conflict mitigation measures through excavating 15 km trench in elephant prone areas in Kiryandongo district. The trenches will be manually done by the affected community who will be paid for their labour. The trench will be 2 meters wide and 1.6 meters deep running along the PA boundary. Individuals will be allocated measured length of boundary. Measurement will be done by elected community supervisors. Payment for work will be done periodically upon verification of works accomplished by MFNP management supervisory staff. It is envisaged that the work will take 5 months to complete. A 15 km trench will be the main output of this project with expected outcome of stopping elephants straying to community land/gardens.

2.0 Biological and organic deterrents to stray elephants

2.1 Beekeeping

Areas neighbouring intensive crop growing communities or rocky or swampy areas will be reinforced with beehives to deter elephants from crossing into community land. 500 beehives will be laid along the boundary of MFNP. The three products will be delivered: natural honey, bees-wax and propolis. Anticipated income from the three products will be 20,000,000 Uganda Shillings.

2.2 Application of Chilli (*Capsicum frutescens*)

The project will support communities to grow chilli (*Capsicum frutescens*) for problem animal management and as a source of income. It is anticipated that a kilo of red pepper will be sold at 10,000 Uganda Shillings. This will be a good source of income for those who will volunteer to pilot the intervention. Drying will help to protect the mature seeds which will then be stored waiting for the best price in future.

Application of Chilli Blocks

Farmers will be supported to prepare chilli cakes/ blocks (a mixture of chopped/pounded chilli mixed with cow/elephant dung and water, when left to dry will form chilli blocks/cakes). These will be burnt and placed along possible entry points for the elephant during the migrating seasons /planting seasons. However the effectiveness of the smoke (tear gas) will depend on the direction of the wind. Whenever winds are favourable, the smoke will deter elephants from approaching the direction of the fire and hence keep away them from accessing crops.

3.0 Wildlife Scouts capacity building.

100 Wildlife Scouts will be identified and selected. They will be supported to acquire skills, knowledge and information about Human-Elephant Conflict management. The project will also provide the Scouts with uniforms and basic working equipment. The project will provide trainings on Human-Elephant Conflict management and mitigation to Community Wildlife Scouts. The project will equip the Scouts with uniforms and basic working equipment.

4.0 Raising awareness

10 Radio Talk Shows about Human-Elephant Conflict Management will be hosted a local FM radio station. 2,000 flyers and 1,000 brochures will be disseminated to communities living adjacent to MFNP.

This activity will seek to deliver sensitization activities to counter Human-Elephant Conflict, nurture a favourable environment for a framework of community-led initiative, and raise awareness on the prospects of elephants protection. Most importantly, the project will disseminate information on Human-Elephant Conflict management and mitigation.

Phase 5 & 6: Monitoring and Evaluation. Periodic monitoring will be done by MFNP management as part of the routine supervisory function. Monthly and Quarterly progress reports will be submitted to Project Supervisor. The project supervisor will monitor the project implementation on quarterly basis and this will help him verify monthly and quarterly monitoring reports from MFNP management and also help him prepare the quarterly reports to AEF Secretariat. Evaluation will be done at the end of the project implementation. An evaluation team comprising of overall Project Supervisor, Auditors, PA management and Community leaders will be constituted. The team will be joined by Official from AEF Secretariat when required. The Team Leader/Supervisor will compile evaluation report to AEF Secretariat.

Phase 7: Reporting. MFNP management will submit monthly and quarterly progress reports to the Supervisor who will in turn submit quarterly reports to the AEF Secretariat. The Supervisor will also submit an end of implementation evaluation report to the Secretariat.

Anticipated benefits.

Implementation of the project will generally increase awareness of the conservation of elephants and reduce Human-Elephant Conflict in the surrounding community thereby increasing crop yields and incomes to the community. Specifically, the following benefits will be realised:

1. Reduction in crop raids by elephants leading to increased crop yields, increased harvests and increased income from crops. This will lead to improved community livelihood and standard of living.
2. Improved food security in Kiryandongo District.
3. Improved relationship between the community and MFNP management.
4. Direct incomes to the community from accruals for the paid for labour in trench excavation.
5. Increased understanding of elephant conservation and possibly change of attitudes towards community co-existence with elephants.
6. Reduction in resentment of elephants leading to protection of the species.
7. Stopping of killing of elephants during crop raids.
8. Increased population of elephants in the long run.

6.0 Project Timeline – outline the timeline for proposed activities within this project. You may find it helpful to relate the timeline to the Phases identified in Section 5.0 above.

Phase	Activity	Months								
		1 st	2 nd	3 rd	4 th	5 th	6 th	7 th	8 th	9 th
1	Submission of proposal and receipt of funds	X	X							
2	Mobilization of community			X						
3	Procurement of tools			X						
4	Implementation of project				X	X	X	X	X	
5	Monitoring of progress			X	X	X	X	X	X	
6	Project evaluation			X						X
7	Reporting			X						X

From the table above, the project will be implemented in 9 months assuming the proposal approval and funding process takes two months, the actual project implementation will take 5 months. Monitoring of progress will be continuous while end term evaluation will be done at Month 9. Two quarterly reports will be submitted in the 3rd and 6th month and final report done at the end of implementation (month 9)

BUDGET

7.0 Has this project received or been pledged any other sources of funding (external)? Give all relevant details (for example, amount, source of funds, timetable, any restrictions):

No, the project has not received or been pledged any other source of funding

7.1 Please provide a detailed proposed budget for this project (in US\$). You may find it helpful to relate expenditure to the Phases you have set out in Section 5.0

Details included in Table annexed to the document

Any other budget lines:

7.2 Please specify the proponents contribution towards the project

Please submit the completed proposal, either by:

Email:

Fax:

You should receive acknowledgement of receipt of your proposal within 14 days.
If you do not receive such an acknowledgement, please telephone:

Further details on any of the above details may be requested by the Steering
Committee of the African Elephant Fund.

FULL PROPOSAL BUDGET					
BUDGET LINE	Quantity/Days/ Participants	Cost/Unit	Expected source of funds and amounts		
			AEF	PROPONENT (GOVT.)	Other (please specify)
EQUIPMENTS/ GEAR/SUPPLIES					
1.0 Trench Excavation					
1.1 Labour for excavation of the trench along Murchison Falls National Park boundary	15,000	4	60,000		
1.2 Hoes	150	3.3	495		
1.3 Mattocks (Pike Axe)	150	5.7	855		
1.4 Axes	50	4.5	225		
1.5 Machetes	50	3	150		
1.6 Spades	150	5.7	855		
1.7 Tape Measure	2	15	30		
1.8 Transportation	1	85	85		
1.9 Signage development and installation	2	420	840		
		Sub-Total	63,535		
2.0 Biological and organic deterrents to stray elephants					
2.1 Beehives (Kenya Top Bar)	500	35	17,500		
2.2 Chilli Seeds	50	14	700		
		Sub-Total	18,200		
3.0 Equipment for Wildlife Scouts					
3.1 Overcoats	100	14	1,400		
3.2 Gloves (Pairs)	100	2	200		
3.3 Gum Boats (Pairs)	100	8	800		
		Sub-Total	2,400		
TRAINING/CAPACITY BUILDING					
4.0 Staff Time					

4.1 Director Conservation	10	147		1,470	
4.2 Deputy Director Field Operations	15	112		1,680	
4.3 Senior Monitoring and Research Coordinator	15	63		945	
4.4 Manager-Awareness	15	49		735	
4.5 Partnerships Coordinator	15	49		735	
4.6 Assistant Director	20	81		1,620	
4.7 Community Public Relations Manager	20	49		980	
4.8 Community Conservation Warden	30	20		600	
4.9 2 Rangers	300	6		1,800	
		Sub-Total		10,565	
PRODUCTION OF AWARENESS & EDUCATIONAL MATERIALS					
5.0 Awareness					
5.1 Development and printing of flyers	2,000	1	2,000		
5.2 Development and printing of brochures	1,000	2	2,000		
5.3 Procurement of airtime on selected FM Radio Stations	10	300	3,000		
		Sub-Total	7,000		
CONSULTANCY/PROFESSIONAL					
BACKSTOPPING SERVICES					
6.0 Consultancies					
6.1 Artwork for the flyer	1	600		600	
6.2 Artwork for the brochure	1	600		600	
		Sub-Total		1,200	
MEETINGS AND WORKSHOPS					
7.0 Wildlife Scouts Training Workshop	1,000	25		25,000	
TOTAL			88,760	36,765	

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Environmental Management Plan
for
the Proposed 15 Kilometers of Elephant Trench
in
Murchison Falls National Park, Uganda.

April 2018

1.0 EXECUTIVE SUMMARY

Creation of the trench will result in a number of benefits as outlined in the project document. However given that the trench will be created in a National Park and in a pristine environment, the activity may result in negative impacts which may compromise the intended objectives if not well mitigated. The table in 2.0 below, outlines the likely impacts together with mitigation measures during planning, excavation and operation of the trench. It gives the rating of significance of the impact and what happens after the mitigation measures have been implemented and shows that it is possible for all of the these impacts to be minimized.

No-project option

The no-project option would mean that the area would remain in the current state and the Human Wildlife Conflict would continue happening. Not implementing the project would mean that all negative impacts associated with the project would be avoided. However given that the project will result in positive impacts such as reduction in crop raids, improved food security, improved community livelihoods, improved reduction in resentment of elephants hence leading to their protection and conservation as well as improved relationship between park and community. The negative impacts of the project could be minimized to acceptable levels and therefore this option is not considered.

Environmental Impact Risk Analysis

	Level 1	Level 2	Level 3	Level 4	Level 5
Happens	High	High	Extreme	Extreme	Extreme
Could easily happen	Moderate	High	High	Extreme	Extreme
Could happen or has occurred	Low	Moderate	High	Extreme	Extreme
Hasn't happened yet could happen	Low	Low	Moderate	High	Extreme
Conceivable, but only in extreme circumstance	Low	Low	Moderate	High	High

2.0 ENVIRONMENTAL MANAGEMENT PLAN

Project Activities	Negative Impacts	Mitigation measures	Monitoring indicators	Ranking of the potential impacts	Ranking of the impacts after mitigation	Responsibility
Planning and Design phase						
Stakeholder consultations to determine priority areas.	Misunderstandings and conflicts between stakeholders and Protected Area management due to reduced access.	Enhanced consultations and stakeholders' scope of coverage during planning. Provision of requisite technical and socio-economic facts about the proposed project. Constant consultations with the communities.	Project design and alignment Consultation approaches used Consultative sessions held			UWA Communities
Excavation phase						
Clearing of the excavation sites. Excavation of trenches using hand tools. Placement of soil from the excavation along the trench alignment.	Vegetation clearing Soil erosion. Alteration of landscape quality.	Development of the trenches along already cleared areas (for example: existing firebreak and security patrol access road). Clearing only the necessary areas. Avoiding densely vegetated areas. Maintaining dense vegetation around the area to prevent soil erosion.	Vegetation density. Soil erosion control measures in place. Monitoring system in place. Final design of the trench.			UWA

Project Activities	Negative Impacts	Mitigation measures	Monitoring indicators	Ranking of the potential impacts	Ranking of the impacts after mitigation	Responsibility
		<p>Carrying out the excavation of trenches during the dry season to prevent soil erosion as a result of storm water/surface runoff.</p> <p>Ensuring use of appropriate machinery and equipment.</p> <p>Institute a stringent monitoring system to inform the excavation activities and conforming to the desired specification and design.</p> <p>Engaging qualified personnel in the project activities.</p>				
	Increased soil and debris from the excavation activities	<p>Use mounds of soil and debris as strategic reinforcement to the trenches.</p> <p>Ensuring that the soil is well lined along the trench configuration to prevent unsightly heaps of soil.</p> <p>Planting grass on mounds of soil to keep area green and prevent erosion.</p>	<p>Soil conservation measures in place</p> <p>Soil reuse and integration into the design</p>			UWA
	Possible accidents and	Keeping a general accident	Accident Inventory.			UWA

Project Activities	Negative Impacts	Mitigation measures	Monitoring indicators	Ranking of the potential impacts	Ranking of the impacts after mitigation	Responsibility
	injuries to workers during excavation activities	<p>inventory at the site.</p> <p>Providing and enforcing use of protective clothing and equipment such as gloves, boots, aprons and ear protection.</p> <p>Ensuring occupational health and safety awareness creation before and continuously on the job.</p> <p>Providing a First Aid Box and having trained first aiders on site.</p> <p>Providing security to workers during excavation to avert wildlife attacks.</p>	<p>Number of accidents reported.</p> <p>First aid box and ERP notices.</p> <p>Induction sessions held .</p> <p>Personal Protection Equipment in place.</p>			
	Noise and air pollution.	<p>Ensuring use of hand held tools and equipment.</p> <p>Limiting construction works to day time only.</p> <p>Observing the Noise Regulations strictly.</p> <p>All workers should wear dust masks</p>	<p>Frequency of servicing.</p> <p>Noise levels.</p> <p>Personal Protection Equipment in place.</p> <p>Activities schedule.</p>			UWA

Project Activities	Negative Impacts	Mitigation measures	Monitoring indicators	Ranking of the potential impacts	Ranking of the impacts after mitigation	Responsibility
	Disruption of natural serenity and game movement.	<p>Planning construction time in response to movement of wildlife within the areas to avoid or minimize disturbance and conflict.</p> <p>Employing humane approaches in translocation/movement of wildlife caught outside the park and unable crossback due to the trench.</p> <p>Ensuring the trenches do not interfere with the natural wildlife dispersal patterns.</p>	<p>Activity schedule.</p> <p>Wildlife translocation approaches employed where necessary.</p> <p>Animal behavior change.</p>			UWA
Operation phase						
Actual use of the trenches to prevent wildlife movement into the community areas and unauthorized entry into the the National Park.	Modification of the local hydrology causing floods and or erosion.	<p>Constructing drains to channel water away from the trenches to the natural course ways.</p> <p>Integrating spillway drains into the design.</p> <p>Avoiding construction of the trenches along waterways and wetlands.</p>	<p>Storm water/surface water management mechanisms.</p> <p>Trench alignment</p>			UWA, Community
	Possible interference	Ensuring that the trenches do not	Animal behavior.			UWA

Project Activities	Negative Impacts	Mitigation measures	Monitoring indicators	Ranking of the potential impacts	Ranking of the impacts after mitigation	Responsibility
	with wildlife movement through wildlife migratory routes/corridors.	cross ecologically sensitive areas such as well-known migratory routes/corridors Engaging neighbouring communitiespartners and relevant agencies in monitoring possible changes in wildlife movement due to the presence of the trench.	Monitoring reports			
	Possible injuries and accidents to wildlife and livestock through falling into the trenches.	Establishing the trench alignment along the inner section of the park boundary. Continuing with maintenance by cutting overgrown grass and ensuring the trench is seen by wild animals Placing soil mounds on the side to reduce wildlife coming into close contact with the trench. Strategic placement of warning signs and disclaimer signs along the fence alignment.	Number of accidents reported. Final design of the trenches. Warning signs and notices.			UWA, Community
Maintenance	Inadequacy of the	Putting in place a performance	Monitoring system			UWA

Project Activities	Negative Impacts	Mitigation measures	Monitoring indicators	Ranking of the potential impacts	Ranking of the impacts after mitigation	Responsibility
<p>activities including removal of soil, debris and vegetation.</p> <p>Assessment of the project's effectiveness in human wildlife conflict control.</p>	<p>trenches in controlling human wildlife conflicts due to insufficient maintenance activities.</p> <p>Possible back filling of the trench by wildlife and or people.</p>	<p>monitoring system to continuously inform the management on its effectiveness.</p> <p>Assigning personnel to periodically monitor the trenches and recommend adjustments/improvements.</p> <p>Ensuring adequate resources are available for monitoring and maintenance.</p> <p>Engaging the local community and other stakeholders in detecting breaches/deficiencies for timely corrective measures</p>	<p>in place.</p> <p>Personnel assigned.</p> <p>Stakeholders engaged.</p>			
	<p>Possible adverse occupational health and safety impacts on workers during maintenance activities.</p>	<p>Providing and enforcing strict use of Personal Protective Equipment (PPE).</p> <p>Hiring trained personnel for activities requiring skilled labour.</p> <p>Conducting regular training sessions for first aid and other emergency responses.</p>	<p>PPEs provided</p> <p>Trainings held.</p> <p>Presence of First Aid kits.</p>			<p>UWA</p>

Project Activities	Negative Impacts	Mitigation measures	Monitoring indicators	Ranking of the potential impacts	Ranking of the impacts after mitigation	Responsibility
		Providing of security to workers Providing First Aid kits				