

Recovery of Murchison Falls Programme



Final Report
15th March 2021



Introduction

The past 18 months has been horrific and challenging for everyone, worldwide. Murchison Falls, UWA, UCF and the local communities have also all been impacted. Covid, the lockdown, elections, anthrax, the plague of locusts, the River Nile flooding (still is) the collapse of tourism resulting in UWA losing 95% of its revenue base and operational budgets, and of course, the surge in poaching.

Despite the challenges and negative impacts, we have still achieved everything we set out to do, and thanks to the family of donors and partners within the Recovery of Murchison Falls programme, we have been able to respond to nearly all critical problems and continue to drive considerable progress. The programme has provided stability, continuity and with UWA, leadership when it was absolutely necessary. Everyone involved in the programme should be incredibly proud.

The Recovery of Murchison Falls programme has been running for eight years, and has focused on establishing the foundations of protected area management to allow for successful management for the short, medium and long term. Management control has expanded from 5% of the park in 2012, to 70% today. This in turn has enabled considerable success in wildlife number recoveries, not least the Rothschild giraffe recovering from 400 to 2000 animals. The potential for wildlife recoveries is now very real and must be realized.

UWA has become far more professional in protected area management over the past decade, and now the focus comes to real time management and adapting management strategies to be more successful than ever before. Whilst not everything is in place, most of the capabilities are, or are nearly there. After years of establishing capabilities, such as a Marine Ranger Unit and a Vet Response Unit, and installing critical infrastructure such as the ranger post network (aligned to the threats and recovery strategy) and Law Enforcement & Operations Centre, UWA can now leverage it all and start to generate the value from it all.

In late 2020 UCF reviewed the Communications Plans for MFPA, in part to confirm the long term plan. Working with Vulcan, the EarthRanger team and leading practitioners the MFPA system is now becoming more and more functional and productive for real time management.

In the North East of MFPA UWA's two new ranger posts have strengthened and provided sustained management to the area. We can expect a considerable increase in wildlife numbers in the next decade, even if the poaching community continues to target the region.

With the JOCC now built and part of a fully-fledged Law Enforcement & Operations Centre, focus has been on the systems and purposeful deployment of capabilities, creation of SOPs and training. Whereas previously departments were siloed, now departments and part of 'one UWA', sharing resources, dramatically improving the collective performance and helping each other.

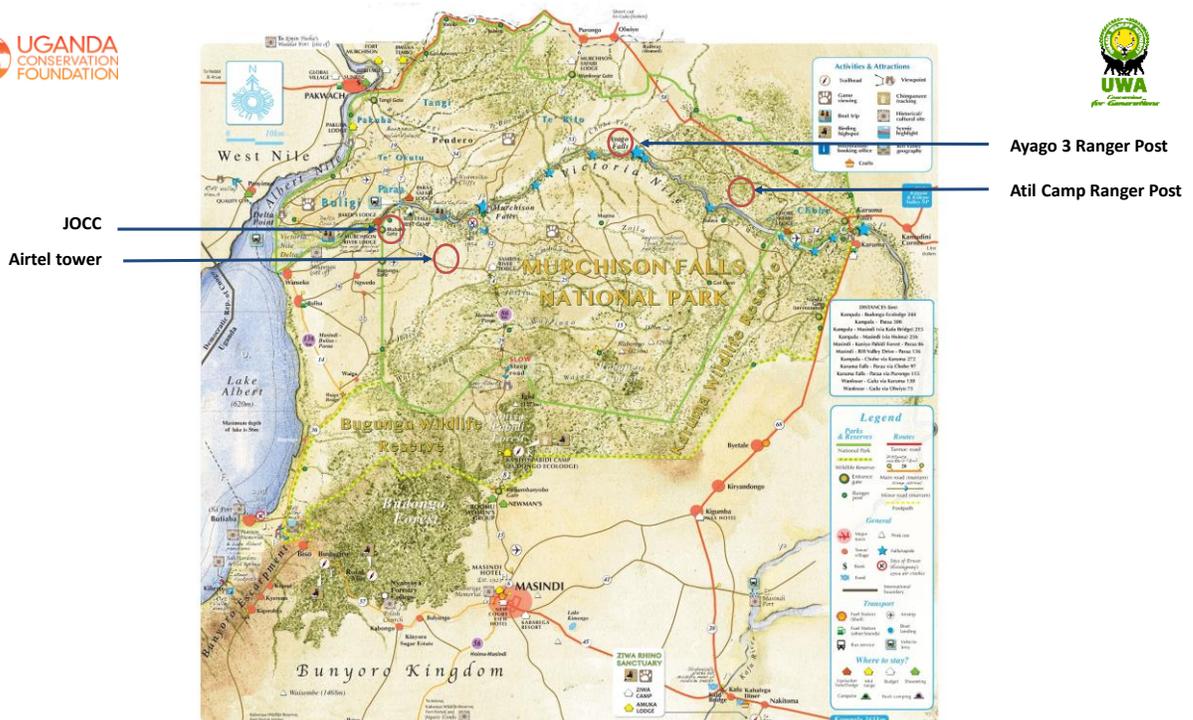




It is incredibly positive to see the beginnings of a new and hugely improved operational culture. Real time management is generating considerable success. Teams are working together, seeing their results and clearly recognizing each other's input into success. Systems and processes are now designed for the park managements use, supporting operations, information management and decision making. UWA is now managing the performance of their operations in real time.

Finally, UCF has an operational car that is supporting all projects, and UWA in MFPA. UCF's aged Toyota Hilux's, whilst still moving, are unable to carry out off road driving which is so necessary. Within days of being operational the car, bought from Toyota Gibraltar, modified by Keltron, was in the field in both the north and south of Murchison Falls, and was involved in operations many kilometers off road, collaring lions in distant areas, and supporting anti-poaching patrols successfully in both areas. At a time when the park was severed in two by the River Nile flooding, with UWA unable to resupply or deploy teams across the river from the HQ in the south, all of UCF's cars were on hand to support UWA throughout the period.

Project Location:

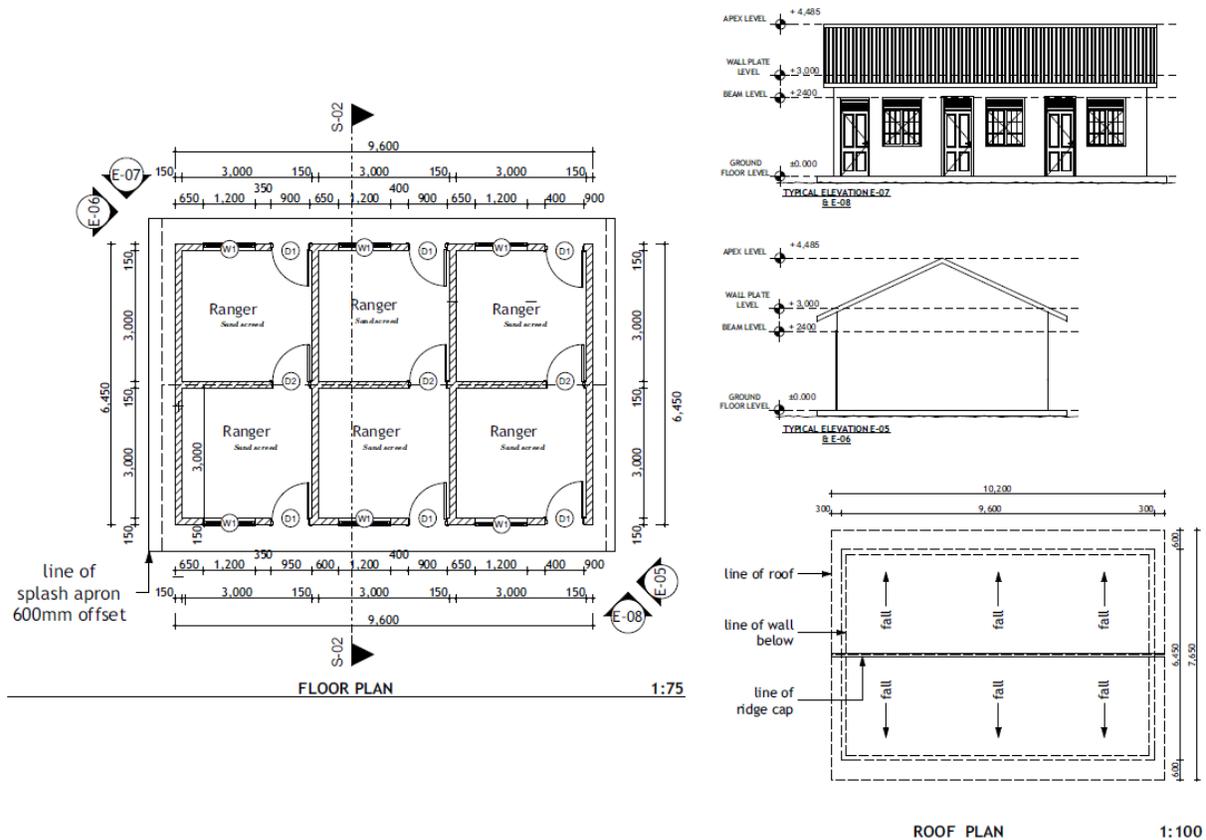


Activity 2. Construct Ayago 3 Ranger Post.

This is a six-man ranger post. Currently Ayago 3 has a four-man facility which is not fit for purpose for the threats and law enforcement requirement in the area.

Mutoni Construction will build the ranger post. It is exactly the same design as for Rabongo Ranger Post, with 20,000-gallon water tanks. Total cost: \$65,000.

Ayago 3 Ranger Post was contracted to Mutoni Construction on the 18th May, 2020. Since then UCF has also added the Ayago 3 Radio Tower to ensure the signal in the region and across the river in the south of the park is strong. Ayago 3 construction was finished in December 2020 and has since been operational.



We will be visiting the area in the next month and will send photographs then.

Activity 3. Joint Operations Command Centre (JOC) technology & equipment

3.1 The buildings now require solar power and battery installation to ensure the facility is operational 24/7. Budget \$10,000.



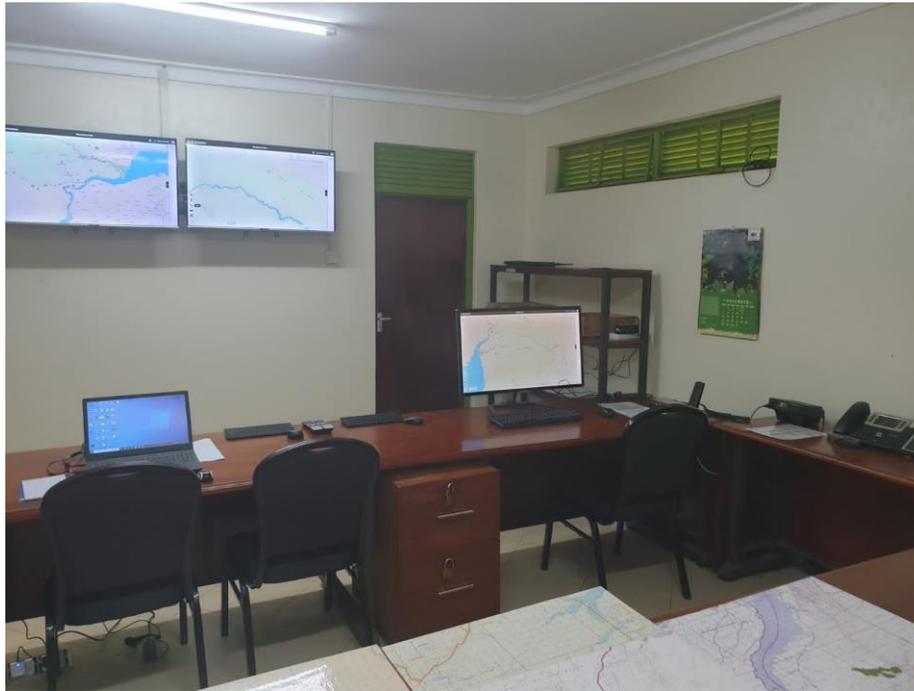
The power solution benefits from UWAs generator being on between 9am to 5pm Monday to Saturday, with a 2-hour break over lunch. With COVID restrictions on fuel, the generator has been restricted, so it has been imperative to ensure the solution not only works overnight, but at any time the generator is turned off.

The power design ensures that all rooms in the JOCC, except for the Operations Room and the Warden in Charge of Law Enforcement office, are off whilst the generator is not on. This protects the power to the essential services and LED lights.

Power management includes:

- 100AH MF Batteries – x 16, 5KW Solar/Grid hybrid inverter 48v, 2U Rack/Tower 3KVA UPS, cabling.
- The armory, store rooms, police station / cells and guard room all work off the generator. However, LED security lighting remains on.
- Also included has been the installation of appropriate cabling, power sockets and charging stations and extension cables.

3.2 The JOC requires computers, screens and basic technology installations, along with furniture and storage facilities. Budget: \$8,000.



The Operations Room: EarthRanger, WPS Watch, radio coms, hotline.

Furniture was hand made in Kampala. All items are very hardwearing, interchangeable and repairable. On comparison the Ugandan supplier not only provided far better quality and bespoke products, but at half the price of the imported chipboard furniture. We were also very pleased to support local businesses during this difficult time.

White Mare Technology, a Ugandan based IT company provided all IT Solutions. This included the screens, two laptops, the EarthRanger desktop, a desktop for the law enforcement Wardens Office, networking cabling, connectivity, software, set up of the systems, the wiring and wifi set up. Fibre connections were also laid to the UWA MFPA HQ and Vet Lab, and wifi set up in each. Due to the terrible condition of the wiring in the main HQ building, the poor back up / antivirus and racks in the UWA main building, UCF has also tidied up all of that. UCF also provided the finance dept with new shelving.

An Airtel Hotline and pbx has also been installed, providing the general public the ability to contact the JOCC for whatever reason, as well as an extension to the Chief Warden, making it easy for internal employees of UWA to directly reach the Chief Wardens office.

3.3 EarthRanger is now ready to include SMART phones with tailor made Cybertracker installed. These need to be distributed to all Ranger Posts and teams. Budget: \$8,000

On advice from protected area technology leads across Africa, Blackview 5700 phones were selected. 25 phones were purchased for MFPA. Since then each has been asset marked by UWA, had Cybertracker installed and are directly linked to EarthRanger in the JOCC.



Smartphone, Android 9.0 Pie Waterproof Shockproof Phone, 13MP + 5MP Dual Cameras, 5580mAh Battery, 3GB+32GB, NFC, Face ID, GPS, OTG - Orange

Visit the Blackview Store

★★★★★ 544 ratings | 117 answered questions

Amazon's Choice for "tough phone"

Price: £149.99 **prime** FREE One-Day

Pay ~~149.99~~ 143.99: Get £6 extra with your first Top Up. *Terms and conditions apply. [Learn more](#)

May be available at a lower price from other sellers, potentially without free Prime shipping.

Eligible for [smile.amazon.co.uk](#) donation.

Note: This item is eligible for **FREE click and collect** without a minimum order. [Details](#)

New & Used (2) from £114.66 Delivery at no extra cost for Prime members

Colour Name: **Orange**



Wireless carrier Vodafone
 Brand Blackview
 Colour Orange
 Memory storage capacity 32 GB
 Operating system Android

The 50 phones in MFPA will be distributed across the park, in areas where there is GSM network, providing real time report flows directly to the JOCC and EarthRanger. Phones will support anti-poaching / patrol teams (land and marine), the vet response unit, community conservation / problem animal control teams, as well as with quick reaction force teams and management.

As with all information feeds (hotline, sitreps, digital radios, satellite collars etc), the information is directly into the real time EarthRanger system, where information accuracy and completeness is checked and management support is immediately provided.

UCF has also been working with Airtel to create a 'closed user group' of 100 sim cards, 50 of which will be installed in the phones, the rest in staff phones across the park, as agreed by the MFPA Chief Warden.



3.4 Internet communications into the JOC require investment to provide a fast enough service, that is encrypted. Budget: \$4000

UCF set up a 10mbs Airtel microwave link at the JOCC, and supported UWA by paying for the monthly cost for three months. In addition, UCF invested in fibre between the JOCC and the UK HQ in MFPA and the Vet Lab. This was to ensure the JOCC was linked to all departments and each building was able to work better, and in better in coordination.

This work was carried out by White Mare Technology, a Uganda based IT firm. Since then UCF has also added an Airtel GSM booster tower at the HQ building to ensure the limited GSM network around the main buildings was improved.



The MFPA Law Enforcement & Operations Centre



Activity 4. UCF Project Vehicle.

4.1 UCF has to manage many field projects in Murchison Falls and its cars are old and not strong enough to do so. UCF will purchase a Land Cruiser that will remain in Murchison Falls to support UCF and when needed, UWA operations.

The car was cofunded between IEF, GC, Tusk Trust and UCF. Whilst it was a large investment, it is a long term capability that enables UCF to operate as needed. Land Cruisers, such as the vet vehicle in MFs can be maintained well and do over 1 million km. In the short to medium term, the maintenance costs will be low.

The project vehicle was purchased from Toyota Gibraltar and was modified by Keltron Uganda. The Project vehicle modification was finished on the 29th October, 2020. Since then the project has been fully operational in both QEPA and MFPA.

The Land Cruiser is an extremely hard wearing car, allowing UCF / UWA to carry out project work across the park, whilst also supporting critical operations such as anti-poaching, problem animal control and veterinary rescues.

Already the car has been used on multiple deep incursions off road in southern MFPA to launch anti-poaching operations and identify whether lions have survived in the area. In fact, three lions have since been collared in those areas. In the north of the park, the lions were not found, but in both, poacher groups were disrupted, their equipment confiscated and some were arrested. UCF is now working on access points across rivers and gullies so efforts can be sustained.



Checking for lions in southern MFPA.



**UGANDA
CONSERVATION
FOUNDATION**



Delivering operational supplies to UWA in QEPA and MFPA: patrol food, tents, fuel



Supporting the restoration of 13 waterholes in QEPA to draw wildlife, especially lions and elephants, away from risky areas into areas where UWA can better protect them.





The team in southern MFPA. On the right is a Uganda Kob and an Oribi, both found dead in poachers snares. The poachers were not caught but all of their snares, spears and camping equipment was found and destroyed. The poached animals were used to help find lions in the area, which was successful.



The Brand new Project car in QEPA – day one. We were praying the elephants would be nice to the car!



Project accountability. With GC matching the IEF grant, we have combined the amounts as per the partnership agreement. This report does not include the MFPA Law Enforcement Land Cruiser.

Activity	Grant Received	Balance	Notes:
Activity 1: Atil Camp			
Project Lead	2,500		
UCF Team (inc team clearing track)	4,010		
Operational costs (accommodation, fuel, food, medical, creation of track, track clearance, ranger support, team food, patrol support)	5,000		
Track clearance on the Chobe / Atil Road & to RP site	1,000		
Pacer Community - Hydroform bricks	4,000		
Capital Costs / contract	41,166	17,324	
Totals	57,676	17,324	(FINAL 30% payment)
Activity 2: Ayago 3			
Project Lead	2,000		
UCF Team	4,000		
Operational costs (accommodation, fuel, food, medical) and site /road clearance	5,900		
Track clearance - Atil / Ayago / Kiiba (labour, chainsaw repairs / operations, food, fuel, grader)	2,500		
Ayago Radio Tower - CAPEX	2,000		
Pacer Community - Hydroform bricks	3,000		
Capital Costs / contract	45,600		
Totals	65,000		
Activity 3: JOCC technology			
3.1 Power Management			
Project Lead	750		
UCF Team	1,000		
Operational costs (accommodation, transport of kit, fuel, food, medical)	2,000		
Capital Costs / contract	6,250		
Total	10,000		
3.2 IT, screens, furniture & storage			
3.1 Power Management			
Project Lead	500		
UCF Team	1,000		
Operational costs (accommodation, transport of kit, fuel, food, medical)	1,000		
Computers, screens, cabling etc	2,300		
Desks and Tables	1,500		
Chairs	1,700		
Totals	8,000		
3.3 Phones - 40 Blackview phones			
Project Lead	250		
UCF Team	700		
Operational cost (car, fuel, asset marking, team support for uploading of phones)	300		
Purchase of 40 phones (shipping / customs covered elsewhere)	6,000		
Purchase of battery chargers, spare batteries, rechargeable batteries	500		
White Mare Technology - preparation of all phones	250		
Totals	8,000		
3.4 Internet / Communications			
Project Lead	250		
UCF team	500		
Operational cost (car / fuel support for installation of tower links at the main tower & JOCC)	600		
Airtel internet installation & 4 month subscription	2,650		
Totals	4,000		
Activity 4: UCF Project Car			
No UCF / Project Lead Costs as this is for UCF.	-		
Purchase - Toyota Gibraltar	46,399		
Customs, registration, clearance	26,353		
Modification	5,253		
Comprehensive Insurance	3,807		
Bank charges & other misc expenses	100		
Totals	81,912	(61,912)	Balance covered by Tusk Trust, UCF



Further developments:

Irrespective of the challenges, the MFPA Law Enforcement & Operations Centre, and with it the JOCC, police station & cells, and storage facility are all operational. The site also has internet, EarthRanger set up and all administrative buildings now connected and running far more effectively and professionally.

Considerable efforts by UWA and UCF have gone on to make sure the systems and processes are set up, including the SOPs for both the Operations Room and radio communications / voice procedure. The standards of information collection, quality and use had collapsed dramatically in QE over the past eight years. Now all signals are routed through one purpose built platform, quality checked and acted upon by the appropriate management teams.

In November 2021, UCF also carried out the MFPA Communication network strategy plan. The plan now provides the infrastructure backbone required for the long term digital radio network, the future core of UWAs payment network, and other technology installments.

The adjustments necessary to the existing towers were expected. Whilst the initial towers provided for the initial roll out of the communications network across up to 40% of the park, with the moving of the towers to their final positions, over 90% of the park can be reached. The final 20% is largely deep forest.

The final shift includes moving the Kololo tower to Punu Rii, the central tower of Rabongo to be moved to the top of the Sengenge hill (7km away – track is being identified now). The Ayago 3 tower does not need to be moved, and the tower originally for Waiga (but not put up due to knowing it would be moved sooner than expected), will be erected at the JOCC. The final tower required is at Te'ekoto in the north. With these in place UWA is not dependent upon any other entity and is then capable of communications and realizing additional technology value across the park.

With EarthRanger linking signal and information feeds from sitreps, digital radios, phones, camera traps, the hotline, sat collars, fire management systems etc, UWA is moving forwards strongly. Furthermore, through Tableau which is fully integrated into the system, reports of numerous descriptions have been carefully designed, allowing for automatic reporting to be established, saving considerable management time and resource, whilst dramatically increasing the quality of all areas of data management and reporting.

The flow and management of information and responses is now far more professional than it has ever been. The JOCC and system has been visited by the UWA top management and the Board of Trustees, all of whom has strongly endorsed to vision, systems and value already being generated.





Acknowledgements:

The investments made have catalysed MFPA management effort, belief and professionalism, and with it the performance of field teams and their impact in anti-poaching, problem animal control, veterinary response and other areas. Without doubt, MFPA has held together during the challenges of the past 18 months far better. MFPA as a whole, continues to recover slowly, but still has further to go to complete the foundation of park management, counter poaching for the long term, be able to respond to community and other management issues, and ensuring the culture change is embedded for the long term. A great deal of focused mentoring and support is required over the next years.

On behalf of UWA and the UCF team. We all wish to thank everybody who has helped generate the support UCF / MFPA has received. Our deepest gratitude and thanks to everyone.

