

**Review of waste disposal on Mweya Peninsula:  
Recommendations for management**

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## Objective

To review waste disposal issues, and make recommendations for improvements in waste disposal management to Queen Elizabeth Conservation Area (QECA), and Uganda Wildlife Authority (UWA) Protected Area (PA) management.

## Introduction

The purpose of this paper<sup>1</sup> is to review waste disposal policy and strategy. This paper was conceived to provide further recommendations, following UWA's interest in our previous report: **Effects of refuse on wild animals on Mweya Peninsula: Recommendations for all Protected Areas**<sup>2</sup>. The previous report:

- reviewed the effects of human refuse on banded mongooses and other wildlife
- reviewed waste disposal management on Mweya Peninsula
- made recommendations for waste disposal management in Uganda's PAs.

## Refuse Disposal

Refuse disposal is an important issue for all of Uganda's PAs. In QECA, refuse disposal is listed under Planning Issues and Concerns in the Queen Elizabeth National Park General Management Plan 2000 (GMP; p12), and was identified as a major threat in the Research and Monitoring Workshop 23/2/03: QECA Threats Analysis.

The GMP said: "Presently, there is no refuse policy or collection system for QEPA operations or overnight accommodation facilities" (p12), "[Proper waste disposal management] will improve sanitary conditions on the Peninsula, reduce impacts on wildlife behaviour, and enhance the overall quality of the tourist experience" (p46).

## Previous Waste Disposal Policy in Mweya, QECA

In our previous report<sup>2</sup> we reviewed the then current waste disposal policy for Mweya (p3: Current waste disposal management in Mweya, QECA): "*Although food waste from the lodge is dumped at the main dump, and all metal and glass taken to Kasese for disposal; all the other waste produced within Mweya is dumped within the village! There are three concrete culverts within the village for disposal (and burning) of burnable waste. But for food waste, tin cans and glass bottles, there are only open 'pits' (which*

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<sup>1</sup> Based upon our presentation at the QECA Research Symposium of 28/3/03.

<sup>2</sup> Effects of refuse on wild animals on Mweya Peninsula: Recommendations for all Protected Areas. Dr. Jason Gilchrist, Emily Otali, Francis Mwanguhya, Solomon Kyabulima. Banded Mongoose Research Project. Report for Uganda Wildlife Authority. Submitted 8/11/02

*have filled in, and are now simply dumping 'points'). Concrete culverts are [in]effective, [as animals] still access the waste within. The open dumping points are completely accessible to all wildlife, and offer a highly unattractive sight and smell to visitors (as well as residents!)."*

### **Previous Recommendations**

In our previous report<sup>2</sup> we made the following practical recommendations for improving waste disposal management within communities in and around PAs: (p3: Recommendations to UWA Management).

- *For food waste, metal, and glass: deep narrow 'waste-pits' should be dug. Such a pit would need to be covered for safety – a design similar to a pit-latrine would be ideal.*
- *For burnable waste: concrete culverts should be covered (e.g. with a metal lid; which would be cheap and easy to produce).*

### **Current Waste Disposal Policy**

Following our previous presentation and paper<sup>2</sup>, QECA Management has now addressed waste disposal issues: there is now a refuse policy and collection system within Mweya. Mweya now has numerous concrete culverts within the village: black for burnable waste, and green for food waste. This is an encouraging proactive step toward improving the environment, and minimising human effects on wildlife.

In addition to the culverts, there are other waste disposal sites within Mweya Peninsula. Within Mweya village; some of the old waste dumping points (formerly 'open pits') are still used. There are also two large dumps on Mweya Peninsula where large quantities of waste food is dumped: the main dump, a gully on the southern side of the Peninsula that drains into Kazinga Channel; and the Tembo canteen dump, situated in a gully on the north-east side of the Peninsula.

### **Problems**

Although QECA now has a refuse disposal policy for Mweya, it's implementation can still be improved upon. There are several problems:

- (1) Waste is being dumped in the wrong culverts: the black and green culverts both have a mixture of food, metal, glass and plastic.
- (2) Animals (e.g. marabou storks and mongooses) get into the culverts and extract food and food contaminated burnable waste.

(3) There is no separate place for disposal of non-burnable waste (metal and glass) – this is currently mixed with food and burnable waste.

(4) Some culverts are full and waste is spilling out.

These problems result in a highly unsightly, unhealthy environment for visitors, residents, and wildlife.

### Recommendations

(1) Inform residents of colour coding: place a notice on each culvert, and educational posters within the village, informing residents that black is for burnable waste, and green is for food waste. Enforce correct waste disposal, e.g. by monitoring and fining people for incorrect waste disposal.

(2) Cover the concrete culverts.

(3) Introduce a third culvert at each culvert site for metal and glass (which should be collected and disposed of).

(4) Collect and dispose of village food waste more often.

The problem of over-spilling waste (culvert waste is not being collected and disposed of often enough) may be due to the impractical nature of emptying the culverts. How would waste be extracted from the culverts? Currently it would be a labour intensive and time consuming operation. A more practical design (see Figure 1) would house a large, low weight bin or drum within the culvert. If such a bin had handles at the top, it (and the waste within) could be pulled out of the culvert, and waste then dumped at the appropriate site: food waste at the Mweya main dump, glass and metal in Kasese.

The problems of waste disposal could be minimised by digging deep, narrow, covered waste-pits, as suggested in our previous report<sup>2</sup>.

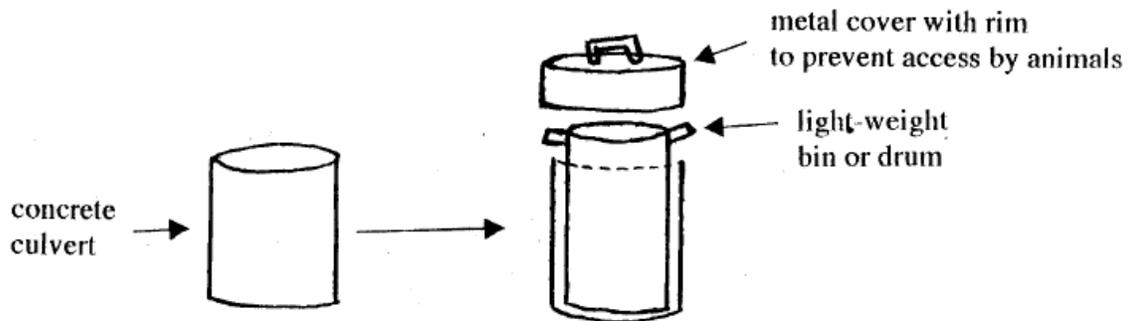


Figure 1

### **Mweya Main Dump**

The GMP said: “the existing landfill on the Mweya Peninsula, now used by both UWA and Mweya Lodge, is a critical problem. Refuse, including paint cans, plastic, motor oil, batteries etc. is now dumped into a small ravine that drains directly into Kazinga Channel. This unsightly refuse dump attracts and threatens a variety of wildlife species” (p12), “the design, construction and operation of the new landfill [is required]” (p46).

Metal, plastic and glass are still being disposed at the main dump. The waste disposed in the main dump is still on open access to animals: warthogs, marabou storks, monitor lizards, and mongooses are all attracted, and gorge themselves on food. The problem of the main dump must be addressed: waste should not be accessible to wildlife, and should not drain into Kazinga Channel. Similar problems exist with regard to the Tembo canteen dump; where food, plastics, metal and glass are dumped and attract a high density of animals. The UWA Hostel would have similar problems, however the Banded Mongoose Research Project currently collects, sorts and dumps the Hostel waste<sup>2</sup>.

The problem posed by the main and canteen dumps is not unique, and the solution will already have been found for PAs in other experienced countries. UWA should seek the solution to the problem through international advice; perhaps consulting GMPs from model PAs of international repute.

### **Other Communities**

The GMP said: “refuse disposal is a QEPA-wide problem” (p12).

There is a waste disposal problem outside Mweya – in the communities within and on the park boundary. Poor waste disposal can lead to serious wildlife problems, for example baboons are attracted into communities by waste food and they then disturb people. This can lead to serious conflict, and UWA is held responsible<sup>3</sup>. As shown in our previous report<sup>2</sup>; wildlife-human interactions can be minimised by restricting animals access to food waste.

### **Other Protected Areas**

Wildlife has access to human waste in all of Uganda’s PAs. UWA should implement similar refuse disposal policy in all other protected areas. We recommend that the UWA Planning, Monitoring and Research Department draw up a Policy Document for all of Uganda’s PAs, and encourage other PAs to follow the lead that QECA management has taken in tackling the refuse disposal issue.

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<sup>3</sup> Baboons kill 13 kids in Bushenyi.’ Pison Mugizi. New Vision, 30/9/02. See Appendix.

Most of the recommendations suggested here, and in our previous report<sup>2</sup>, for QECA and other PAs can be achieved on a small budget. The solution to the main dump problem may be more costly to implement. Donor agencies should be approached to assist with funding. In solving Uganda's PA waste disposal problem: major environmental improvement can be made with relatively modest financial investment.

## **Conclusion**

Improving waste disposal management in QECA and Uganda's other PAs will improve the environment for both humans and animals. Mweya, as the HQ of one of Uganda's most prominent and well-respected National Parks, is setting an example by implementing an ecologically friendly waste disposal management policy. Implementation of the recommendations made in this, and our previous report<sup>2</sup>, will lead to improved sanitary conditions: reducing impacts on wildlife and enhancing the quality of the tourist experience. Animals access to food waste will be restricted. Animals access to dangerous non-food waste (buvvera, glass, metal) will be restricted. Once a working refuse disposal strategy is in place for Mweya, similar waste management should be introduced to other settlements and communities in and around QECA, and across Uganda. Uganda's PAs will then be a more hygienic, healthy, and more aesthetically pleasing place; benefiting the local population, tourism, wildlife, and the environment.

## **Appendix**

### **Baboons Kill 13 Kids In Bushenyi**

By Pison Mugizi

At least 13 children have been killed by baboons in Kashaka village, Katunguru sub-county near Queen Elizabeth National Park in Bushenyi district, since July. The area district councillor, Stephen Katesigwa, said this on Thursday while briefing journalists after two children were killed by the baboons. Katesigwa said the dead children were Sakira Barigye, 2, and Issa Kabuye, 4, sons of Badru Kabuye, a resident of Kashaka village. He blamed the death of the children on the laxity of the national park management to control the movement of the animals.

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