

# BUSINESS OPPORTUNITY Pit Emptying





# You may not have thought about taking Waste For Disposal in your Pick Up, This is a New Business Opportunity.

Recent market research has shown that all around Kampala there are thousands of latrines that are filling up and need to be emptied and that people are willing to pay for this. In the old days people might have been able to dig a new pit, but we have run out of space.

Until recently, emptying these latrines was virtually impossible because they are in areas where a vacuum tanker cannot pass. Now, with the development of the hand-carried and hand-powered GULPER, the waste can be pumped into 200 litre drums and taken in your pickup to the disposal site. People are willing to pay UGX 25,000 – 30,000 per 200 litre drum, so with 6 drums on the back of your pickup you could be earning more than UGX180,000 per load.





#### The Business Model

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To start you will need to buy a GULPER, some second hand drums and a few tools, a total expenditure of under UGX1,600,000. You will also need to employ a couple of operators. With this you can provide a latrine emptying service to householders and make good use of your pick up. You will earn money from charging fees for the service.

**Overalls** 

The Gulper is a new pumping tool that has been proved to be effective in getting the waste out of latrines.

It is a simple piece of equipment that can be carried by hand. It is usually made of polythene pipe, with a system of non-return valves within the pipe to ensure single direction flow of the pumped sludge.

The Gulper works like a tyre pump but in a reverse way; pumping out of the pit rather than pumping air into the tyre. The non-return valves, input sieve and internal rods are generally made up of pure stainless steel.



#### **HOW IT WORKS**

Pit-emptying is an on-site service offered to householders at their homes. There are five stages to the emptying a pit:

#### **Preparation**

After chlorinating the pit, all the rubbish (such as plastic, rags, bags, old shoes) is removed from the pit using a hooked rod. This may make up to 25% of the pit content and it may be necessary to add water to soften the sludge for ease in gulping.

#### **Emptying**

Using the Gulper, the semi liquid sludge is pumped out of the pit into a 30-litre bucket placed beside the latrine. The quantity to be emptied at each pit will depend either on how far the Gulper can reach or on how much the latrine owner can afford. Within around three minutes, the gulper can fill a 30 litre bucket, which takes around 12 pumping strokes.

#### **Transfer**

The contents of the buckets are tipped into 200-litre drums. This may either be done at the pit or taken to the roadside using a trolley or the buckets are carried to the roadside and tipped there. Up to 6 drums are then loaded onto the pickup and transported to the disposal site at Bugolobi.

#### **Disposal**

After paying a fee, the contents of these large drums are tipped into the disposal area for treatment.

#### Disinfecting

The Gulper, rod, buckets and drums, as well as the emptiers' dry protective wear (like gumboots, gloves, mouthpiece and goggles) and the pickup are disinfected right at the disposal site.

#### Who Will Your Customers Be

Ideally, your customers are those households that cesspool tankers cannot access. They will vary considerably in what they can afford to pay for the service. Charge them by the drum, that's by the amount of sludge removed.

Target areas will therefore include areas like Nsambya, Kawempe, Bwaise, Nansana and Kanyanya in Kampala.

A traditional pit contains around 7 x 200 litre drums. The Gulper can reach 1.5 metres, the maximum that can be emptied from a pit using a GULPER is about 4 - 5 drums.

In practice, many households can only afford to remove 2 to 3 drums each time, but some will become repeat customers.

In order to minimize your truck running costs, you will need to identify several households that are near to each other, in order to carry a full load (6 x200 litre drums).

Experience shows that marketing your service will be very important. Either you or your operators may do this when you have time or you may employ some professional marketers on a commission basis to promote your business.

# Quality and Quality Control

Quality is always important in business, but particularly so in sanitation. Bearing in mind that pit sludge is potentially dangerous and smelly, your customers will expect a high standard of service in which there is no spillage – with the place left clean and sweet smelling once the operation is complete.

This is not always easy if it is difficult to get the Gulper into the pit or there is a lot of smelly rubbish so you will need to employ good, committed operators and pay them a decent wage.

The operators must wear **OVERALLS**, **BOOTS** and **MASKS** at all times when operating the gulper or transporting the sludge. Drums must be well sealed and both the equipment and the pickup be cleaned after

use.

#### Hygiene

Latrine sludge is a dangerous product, containing bacteria, viruses and worm cysts. It must be handled with care – so that the operators do not touch the sludge nor is sludge allowed to leak out into the surrounding areas at any time.





#### **Prices**

Prices will vary with the place you are serving. At present there are not many people offering a clean and efficient pit-emptying service so prices are attractive – generally between UGX 25,000 – 30,000 per 200-litre barrel.

But make sure you get paid in advance, either the full fee or a deposit, and have the client sign an agreement. We have samples of agreements you can use.

"I make a minimum of UGX 50,000 a day, which is very good money. I have never made this kind of money before"

"I am very happy with the service. I need my pit emptied every four months and this is a good solution for me"

Mrs. Byuma - KANYANYA

### Staffing, Skills and Performance

Pit-emptying does not require any particular skills. What is more important is the attitude and commitment of the operators who do the work on site. Two operators are needed.

The maximum that two operators could empty in a day is 20 x 200 litre drums.

Remember that your operators will perform best when paid well and provided with protective clothing and regular medical check-ups.

#### **Efficiency Indicators**

It is important to have some simple indicators that you can use to see how efficient your business is. Here are three good indicators:

In order to make a good profit, you need to empty at least 6 x 200 litre drums per day, to enable you to make one trip.

Staff cost (2 operators) should be 30,000 per pit or 5,000 per drum.

Fuel cost will vary depending on the distance travelled, and the fuel consumption of your truck, but based on current fuel prices (UGX 3,560/litre); fuel cost for the truck would typically be UGX 20,000 per pit emptied.



## Legislation and Regulation

Because you are dealing with a dangerous product you will need to obey the regulations that cover the handling and disposal of human waste.

UGX 5000 is the dumping fee charged per trip regardless of the number of drums.



#### **Growing Your Business**

If you find this is a good market then you might want to expand the business by purchasing a second set of equipment and employing two more operators, which would keep your pick-up busy most of the day.

The next stage would be to purchase a second pickup and more equipment.

If you already own a truck, all you are risking is an investment of less than \$600 in some simple equipment. Should you find the business does not suit you, you can sell the equipment and carry on using your pick-up as before.

## Financial Characteristics of the Business

Annual turnover (assuming one truck load a day for 312 days per year) is estimated at over UGX 60million. Net margin (before interest and tax) is estimated at over 30%, about UGX19million per annum.

Total expenditure is estimated at UGX40million per year, which includes labour costs of UGX8million, fuel costs of UGX6.5million, consumables (disinfectant and replacing equipment) of UGX3.5million and marketing costs of UGX3.7million. Other costs include: repairs, maintenance and insurance for the pick up; driver's salary; and truck depreciation.

"I found the business more profitable than I had imagined"



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