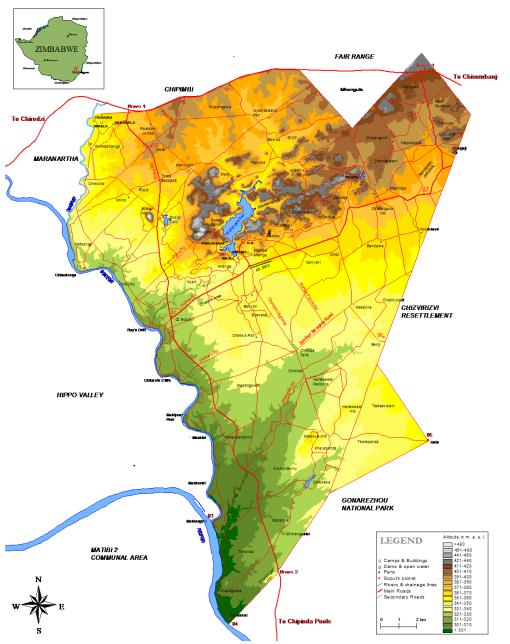
The Malilangwe Trust development through conservation



Appropriate sustainability



Malilangwe Wildlife Reserve



Environmental Policy – Malilangwe Wildlife Reserve

We recognise that any development in a wilderness introduces the potential for environmental harm. However, in cases such as ours, some development is necessary in order to share the wilderness with others, to render the land economically viable, and so to safeguard it from less environmentally friendly forms of land use.

Our aims at Malilangwe are to keep negative impacts to the environment to a minimum while developing the property only as much as required to secure its productivity and protection. Investments are made into understanding and maintaining a healthy, natural ecosystem within the limits of our modern world. We recognise that the world's resources are not limitless and that we are custodians of one of the most irreplaceable commodities, being a wild and beautiful piece of earth.

At Malilangwe care for the environment is our core philosophy and the foundation of our business. This is not only because the environment is the platform from which our business is launched, but it is also because environmental considerations permeate all aspects of the running of this property, from acquisitions to daily operations, through to waste disposal. Our philosophy forms an integral part of decision making processes.

Wherever possible, products acquired for the running of the reserve are selected on the basis of their suitability to recycling, biodegradability and potential to reduce power, fuel and water consumption. Every land management decision, from the alignment of roads to the introduction or removal of game species is based on sound ecological advice. Care is not restricted to our wildlife, but extends to our cultural and archaeological heritage – our rock paintings and archaeological sites. Nor is it restricted to Malilangwe. Major investments are made into health, education and support for our neighbours

At Malilangwe/Singita Pamushana we offer our guests the opportunity to actively share in our philosophy in various small but significant ways.

We have an on-going environmental Education program aimed at enabling all our employees to share in our philosophy and to take that philosophy further afield. We are constantly searching for better ways to improve our environmental performance, and we are continually monitoring and evaluating our progress in this regard.

We willingly accept that making the environment "key" to our functioning comes with financial sacrifice and additional work requirements.

Sarah Clegg – Sustainability Champion, The Malilangwe Trust

Alignment with One Planet principles

- Minimise carbon
- Waste management
- Sustainable Transport
- Sustainable materials
- Local and sustainable food
- Sustainable water
- Land use and wildlife
- Culture and Heritage
- Equity and Local Economy
- Health and Happiness

Minimise Carbon

- Malilangwe has 2 x 400 kVA generators & 3 x 150 kVA generators
- Consumption is 27 litres diesel per hour
- We need to consider larger emphasis on power shedding at night (2200 hrs-0500 hrs)
- Erratic grid supply necessitates generator/diesel use
- 400 Watt (US \$120.45)Floodlights at Singita Pamushana have been replaced by equally bright Energy Saving Lights of 85 Watt capacity. (US \$ 36)
- Solar LED lighting has been introduced at Malilangwe's Hippo Valley Safari camp
- Solar heating of lodge pools
- Aim for 30% reduction in consumption in lodges
- Centralised air conditioning? Heat harvesting from other appliances?
- Large inverters?

Solar Initiatives

Malilangwe Staff Clinic

 Recently ran purely on solar energy for 45 days



 New Houses fitted with Solar geysers



Solar powered electric fence

- •121 km of 2.4 m fence
- •16 "hot-boxes" providing 5,000-7,000 volts of solar energy



Providing water to pans and scout pickets





Waste Management

- Throughout the property, a recycling system has been rolled out.
- Each household/facility has a selection of labelled bins to receive specific waste.
- Householders have been coached in separation of waste.
- Separated waste is transferred from individual bins into corresponding 1 ton bags.
- These bags are loaded onto a truck, which transports the separated waste to various recipients
- Bins are secured in mesh cages to prevent wildlife interference, and as a health precaution



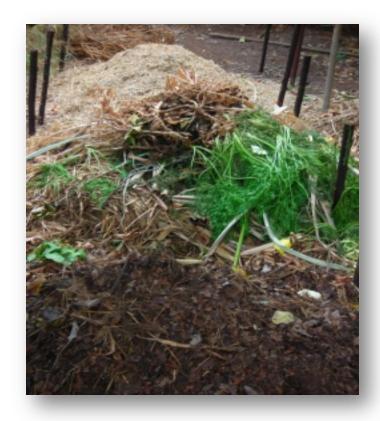


Waste Management

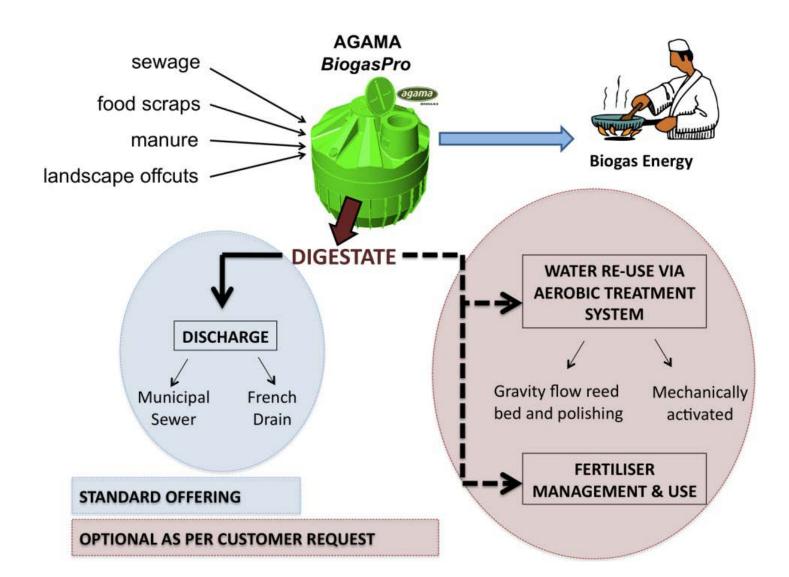
 Recently completed Incinerator to cater for sanitary waste & other necessary items



- Composting with organic material
- Plans in place to introduce worm farming projects



<u>Pilot project October 2012</u>: Biodigester at Singita Pamushana base camp – 40 kg food waste per day supplying gas for 2 x burners @ 2 hrs burning per day – we will assess the effectiveness



Sustainable transport

- Malilangwe has a large number of vehicles
- The only initiatives in place are attempts to share transport
- Possibly research practicalities of batterypowered vehicles?
- All new boat engines will be 4-stroke models, significantly lowering emissions

Sustainable materials

- All new roofing chromadeck as opposed to asbestos
- Idea under discussion regarding use of gravel previously contained in breached dam walls as material to maintain roads. Certain dams were breached purposely in a project to minimise existence of un-natural water facilities at Malilangwe
- Eco-friendly cleaning materials Malilangwe is researching the benefits of changing to the Delphis Eco range of cleaning products

Sustainable cleaning materials

- Malilangwe intends switching to Delphis eco, an Ecolabel accredited product range www.delphiseco.com
- We are engaging our Auditors re best practise in terms of pricing vs greening

Item	Current cost	Delphis Eco
Dishwash liquid	\$ 3per litre	\$ 4.62 per litre
Glass Cleaner	\$3.25 per litre	\$3.83 per litre
Degreaser	\$5.89 per litre	\$5.51 per litre
Toilet Cleaner	\$4.24 per litre	\$2.57 per litre



Rural Housing research

- •zero fire when making bricks
- •zero timber
- zero cement
- made of clay & dung
- •However, leaves large borrow area





Local and Sustainable Food

- Zimbabwe, being a landlocked country, imports all seafood requirements. Singita Pamushana utilises a Zimbabwean company to import all seafood.
- Malilangwe Trust, where possible, purchases fresh produce from the community vegetable gardens set up as depicted under 'Equity and Local employment' below
- Zimbabwean beef products are served at Singita Pamushana

Sustainable Water

- At Malilangwe/Singita Pamushana, water usage is high
- 2012 has seen the drilling and equipping of 7 new boreholes
- Studies are in progress with research partners on the water quality of the Chiredzi river, which flows along the western boundary of the property. Conductivity is alarmingly high, purportedly as a result of excessive run-off from a nearby agricultural concern
- Singita Pamushana is shortly receiving an alternative to plastic bottled water
- In 2011, Pamushana's cost of bottled water was US\$22,000
- Initial cost of the Natura Unit will be US\$15,750
- With service agreements, bottle purchase &
 Replacement, gas refills etc, the new system will prove
 more cost effective in the long term, as well as
 addressing the sustainability mandate



Land use and wildlife

- Conservation best practise engineered through a participative research department
- Habitat management that combines scientific data with full analysis of local conditions
- An understanding of relationship dynamics of different habitats
- Beneficial fire management policy
- Wildlife population management based on annual census data coupled with the above
 - determinations
- Green label Regent*- malaria spraying
- ALL pesticides Green Label Batechem
- ALL herbicides Green Label Batechem



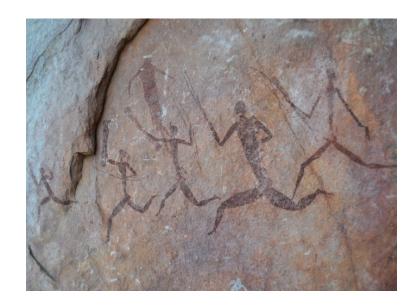
Malilangwe Trust hosts an annual Course on the correct administration of wildlife dangerous drugs



Culture and Heritage

- Archaeological research forms a significant part of Malilangwe's conservation effort
- Malilangwe enjoys 82 different rock art sites, all of which are documented







Equity and local employment

- 99% of Malilangwe's employees are Zimbabwean
- Environmental Education brings
 Grade 6 children from
 neighbouring communities to
 Malilangwe
- The 3 day course (8 courses per year) covers life skills, an environmental curriculum, and provides an awareness of choices for future employment in conservation and tourism





Community Irrigation schemes

- Six Irrigation schemes in district
- Each supports up to 150 people
- Water supplied through manual Boreholes
- Product sold to Malilangwe where possible, and into Chiredzi
- Transport issues need addressing







Health and happiness

Malilangwe Clinic

- Registered Nurse supports 300 staff members on the property
- Private Doctor visits once weekly
- Consultant attends twice weekly to coach in emergency preparedness
- HIV/AIDS counsellors have been trained on the property



Social

- Malilangwe has a football team playing games against neighbouring teams
- A gymnasium has recently been completed providing a fitness/health centre for senior staff
- "The Malilangwe 100"- an annual race to find our fastest runner

