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# The Africa Trust

## Founded by AquAid



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The first funding stream for **The Africa Trust** was established by **AquAid Franchising**. **AquAid** have also agreed to absorb all the UK overheads and admin costs so that any money raised goes directly to the projects on the ground. Significant funding is also being provided by DFID through a partnership with Pump Aid. The founding CEO of **The Africa Trust** is Ian Thorpe, who has had a long partnership with **AquAid** during his time as the CEO of Pump Aid (which he founded). **AquAid** donated over three million pounds to Pump Aid over seven years. Pump Aid grew exponentially over the ten years when Ian was CEO and millions of people in over 7,000 communities in rural Zimbabwe and Malawi now have access to clean water using the Elephant Pump, which

Ian invented. Ian also invented an innovative solution to sanitation called the **Elephant Toilet** and he is the only person to have won the St. Andrews Medal twice. Pump Aid handed over responsibility for the 5,000 pump programme which was established in Zimbabwe and in addition to maintaining this programme, **The Africa Trust** will continue to install new pumps.

## Mission Statement

**The Africa Trust works to bring sustainable solutions to poverty in Africa.** This includes establishing sustainable supplies of clean productive water and decent sanitation. Income generating projects are used to pay school fees, improve clinics and generate the funds needed to run orphanages. Wealth creation is an important objective, with business skills training helping school leavers and villagers to start or expand profitable businesses. Solar projects are used to cut energy costs and create local employment. Funds are circulated to catalyse projects and are then extracted to establish new projects or to invest in expansion.

## What does The Africa Trust do?

**The Africa Trust** manages a large water supply programme in Zimbabwe with over 5,000 Elephant Pumps installed and new pumps being built all the time. **The Africa Trust** pays for business skills training in Uganda which is helping to generate millions of dollars of wealth through the businesses that result from training. This training programme is now being introduced in Zimbabwe. One of the innovative new projects is growing bananas to pay for school fees. The banana plantation can only be established once an Elephant Pump or piped water plus a fenced area have been installed at the school.

## News

**January 2011** saw the establishment of banana plantations at ten schools in Zimbabwe which will allow 500 students to pay their own fees.

**February 2011** business skills training was commenced in Zimbabwe and a class of 50 people went through the course followed by a smaller training of trainers course led by **The Africa Trust's** Business Advisor in Uganda, Livingstone Mukasa.

**March 2011** from 1st March Pump Aid commences handover of their programme in Zimbabwe to **The Africa Trust** including 5,000 pumps, field vehicles and other assets. Some former Pump Aid Zimbabwe staff will work for **The Africa Trust**.

## Paying for School Fees with Bananas!

To go to school in Zimbabwe, school fees must be paid. It costs around £21 a year for a primary school child to remain in school and £45 for a secondary school student, but for some children, especially orphans, this might as well be a million pounds.



**The Africa Trust** has developed a solution to this problem which does not involve simply paying fees for children. Instead, an arrangement with a banana export company means that children can grow bananas in their school to pay for their own school fees.

A variety of bananas is being grown called Sweet William which is exported, mainly to South Africa. The company provides training in each community as to how the banana plants should be grown and they have even agreed to provide fertiliser. The cost of the fertiliser is subtracted from the money raised when the bananas are harvested. In addition to guaranteeing a market for the bananas, the company has also agreed to provide transport.



It takes around nine months to grow a banana plant to the point where the bananas are harvested. A net profit of around £3.20 can be achieved per banana plant after the cost of fertiliser has been subtracted. This is based on an assumption that the banana plant is watered and fertilised properly throughout and no cows or other animals eat or destroy the crop. So this means that if a primary school child has twelve plants to look after, they can hope for around £38 profit when the bananas are harvested assuming that all the twelve plants survive. This will be enough to pay for the child's fees for one year and will also pay for new seedlings (suckers) to replant for the next year (80p per seedling - this produces better results than using suckers from the existing banana plants).

A secondary school student needs to look after twenty banana plants to produce £64 profit which pays for fees plus new seedlings for the next year. This model does mean that in the first year, fees must be advanced by **The Africa Trust** if a child is to remain in school, but this advance is recovered when the first crop of bananas is harvested or that money is used to pay for the next year's fees if the child is still in school. The banana project provides each child with a sustainable way to pay for their school fees right through school from grade one to grade seven then from form one to form four (eleven years at school).

**The Africa Trust** also provides investment for a banana plantation to be set up at each school including paying for the first seedlings, for fencing to ensure that the crop is not damaged by livestock and for piping and/or an Elephant Pump to provide water for irrigation. The child must then water their plants right through the year including during holidays where children often take turns to ensure that the whole plantation is watered.

The cost per child for this investment varies from school to school due to the piping requirements, but the average is around £28 at primary level and £46 at secondary level. There will also be need for some additional investment over the years by **The Africa Trust** to ensure that plantations are properly managed, with additional

training where necessary and some repairs to fencing and water supply systems. So we have decided to raise £77 per child. This will provide a sustainable source of income to pay fees throughout each child's time at school. **Are you able to help us?** We are looking to raise £7 per year per child for them to stay in school throughout 11 years of primary and secondary education. A direct debit of just £3 a month will be enough to keep five children in school. We really need your help because there are currently more than a million children in Zimbabwe alone who are not going to school due to lack of fees.

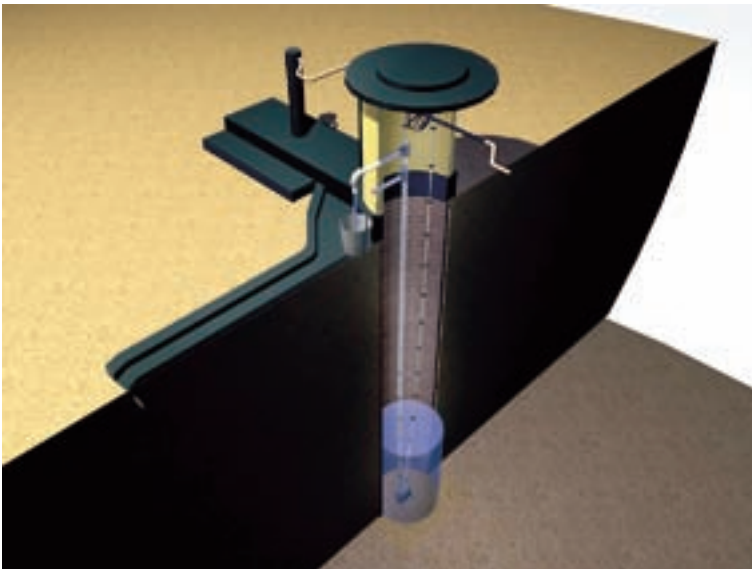
## Business Skills Training

For most people in rural Africa there are few opportunities for formal employment and the best chance they have to escape poverty is to start some kind of income generating project. Many people try to start projects which fail due to a lack of basic business skills and it is for this reason that **The Africa Trust** has stepped in to help. Working together with the Transformational Business Network (TBN) **The Africa Trust** is funding the training of thousands of villagers at a cost of £12 per person (including food and written material in their own language) for a four day course. This course covers the basic skills needed to set up and run a profitable business. Suggestions of suitable business ideas are also presented.

The success rate for this programme has been remarkably high with around one third of the people who attend the training managing to set up or dramatically expand a business within six to nine months. Each business typically employs 1-3 people and pays salaries of around £100 a month. While this may not sound much, such amounts are very significant in rural economies. If we calculate the return on investment for the money spent on training we can see that an investment of £12 per person generates new wealth of over £30 per person per month by the second year, and this benefit is expected to be maintained in the long term.

The business skills programme has been so successful in Uganda that it is now being introduced to Zimbabwe where the rural economy is even more depressed. In addition to training villagers, the training will also be provided to students just before they leave school. At present, this is being done on an informal basis at weekends through arrangement with school authorities, but as time goes on it is hoped that these vital skills will be incorporated into the national syllabus for general studies. An annual competition is being run to motivate students and teachers with cash prizes to help them start up their proposed businesses. The ToughStuff business (see

below) is also being offered to schools with incentives for those individuals who are able to sell the most products.



## The Elephant Pump

The Elephant Pump is based on a 2000 year-old Chinese design that the CEO of **The Africa Trust**, Ian Thorpe, adapted to make it stronger, more durable and made and maintained using materials that are locally available in remote rural sub-Saharan African communities.

As the handle is turned, water is drawn up from a well of up to 30 meters in depth via a central pipe by washers attached to a rope. As the pump mechanism is fully enclosed to exclude sources of contamination, it yields a quality and quantity of water which exceeds WHO guidelines. The surplus water is used for livestock and irrigation of crops.

### Some key features of the Elephant Pump are:

**Low cost:** **The Africa Trust** contributes materials and supervision, while the beneficiaries contribute bricks, sand and some labour, creating a sense of ownership. Some of the capital cost can be recovered over a period of years through productive use of the pump and advertising on pumps.

**The Elephant Pump** has a low average cost per unit and per person (including the cost of site assessment, well preparation, community training, building materials, monitoring and maintenance training).

**Ease of use:** **The Elephant Pump** is safe and suitable for operation by children and the elderly.

**Reliability:** At any one time around 95% of existing Elephant Pumps are in operation which is 40% above the average for Africa. Beneficiaries are trained by **The Africa Trust** staff in how to make spare parts, such as rope and washers.

**High yield:** **The Elephant Pump** can provide 250 people with 40 litres of clean water per person per day (20 litres domestic use, 20 litres productive) or up to 500 people with 20 litres per person per day (for domestic use).

## Pump Minders - Key to Sustainability

It has been seen that the pumps which have been well maintained over the years are at sites where at least one key person has been trained on how to maintain the pump. Instead of simply providing general training for the whole community, **The Africa Trust** has recognised that it is vital to train at least two people who are likely to remain in the community. Many young men leave the rural areas in search of work. Older women are often the best people to train, as they are less likely to move away.

Once identified, 2-3 pump minders per pump receive initial training when the pump is installed with further training after 3 months, 6 months and one year. By this time, it is expected that the pump minders will be able to do all minor repairs with informal payment in kind (often in the form of food) from the others who use the pump. Spare parts for the pumps (such as washers and rope) are made from waste products and the pumps contribute to increased agricultural production, so this approach to maintenance is sustainable.

Pump minders collect a low level of community contributions once the pump is productive to pay their wages and a small part returns to **The Africa Trust**. This helps pay back the capital cost over five years. Millions of people in over seven thousand communities use Elephant Pumps.

## The Elephant Toilet



The Elephant Toilet uses just two bags of cement rather than the seven bags that are used for the Blair/VIP Latrine design that the Government of Zimbabwe has selected as its standard technology for rural sanitation projects\*. The cement in the Elephant Toilet is mainly used to mould a reusable slab that sits above the main toilet pit.

The **Elephant Toilet** diverts urine into a secondary composting pit, which lengthens the life of the toilet and results in a rich source of compost. A clear plastic bottle covered in pin prick holes is placed at the top of the chimney creating an innovative ventilation system that also traps flies.

Seso or an alternative soap plant, is planted outside the toilet for disinfecting hands. A plastic container of water is hung outside the toilet with a ballpoint pen barrel and lid system to deliver small quantities of water to each user. Waste water from washing hands falls on the Seso plant, which helps with its propagation.

### Some key features of the Elephant Toilet are:

**Low cost:** The Africa Trust provides supervision and materials (primarily the cement), while beneficiaries provide mud bricks, thatching and some labour. All materials are readily replaceable by the local community.

**Usage:** Each toilet serves a household of on average 10-15 people.

**Legacy:** The stone lining of the pit allows for planting of a productive fruit tree once the pit has filled and the slab is re-used for a new toilet.

The Africa Trust is exploring ways to recover the capital cost of toilets through the savings made by users on fertilizer, carbon credits and advertising. This would allow the initial investment to be re-circulated to assist more people and would provide greater momentum.

## Nutrition Gardens

The provision of sufficient water for both domestic and productive use from the Elephant Pump and nutrient rich compost from the **Elephant Toilet** means that nutrition gardens can thrive in the communities where **The Africa Trust** works. These gardens help rural communities to have a healthy diet and to grow surplus produce for sale at local markets. Income generated from agriculture helps children, families and communities break out of the cycle of poverty. Children often pay their own school fees through the sale of produce that they grow.

Where appropriate, **The Africa Trust** (directly or through its partners) provides agricultural training to the communities that could benefit from establishing a nutrition garden alongside the Elephant Pump and Toilets. Child focused training is required in some communities because with a whole generation decimated by HIV/AIDS in Zimbabwe and Malawi, the knowledge and skills of farming have



sometimes not been passed down to children. The nutrition gardens are established and maintained by the communities themselves after training from **The Africa Trust** which results in the establishment of demonstration nutrition gardens.

## **ToughStuff**

In partnership with **ToughStuff**, **The Africa Trust** is seeking to bring down the cost of energy in rural homes while creating a new business which has huge potential for scale. The money spent in rural homesteads on energy for light (usually paraffin lamps) and the charging of batteries (including mobile phones) is around £5 per month. For just £3 a month they can rent a **ToughStuff** solar kit which provides lighting and adaptations to charge batteries and mobile phones. The light is much brighter than with paraffin lamps and does not produce noxious fumes or greenhouse gas. Instead of taking mobile phones or car batteries many miles to the nearest mains electricity supply, people can charge them at their own home with reduced risk of theft.

One salesperson builds up a customer base of up to 1,000 homesteads and when collecting rent each month, the salesperson checks if there is any need for repair or replacement, which is done for free. Typically it takes a couple of years before the batteries in the solar light need to be replaced but this is a minor cost.

The salesperson advises on how to set up the solar panel by embedding it into cement to make it impossible to steal and the lights are attached inside the house where there is very low risk of theft (lights and other components would not function without the solar panel so have no re-sale value since only entire kits are sold).

This business model generates significant profit by the second and third year and thereafter provides a steady income stream and employment for the sales team and their manager. **The Africa Trust** is looking for investment for this project and when the investment starts to generate a profit, the investor can reclaim the investment, re-invest or decide which other Africa Trust project they would like to support.

**The Africa Trust** takes a small margin from the entire business to use for support, training, marketing and expansion.

## How you can help

You can help **The Africa Trust** lift people out of poverty in a sustainable way. Just £3 a month pays for five children to stay in school through their own efforts and by planting banana trees these children are helping you to reduce your own carbon footprint.

**Can you help us link up with big volume products in the supermarket with a per product contribution of just 2p paying for one child to stay in school for a day?**

**AquAid** and **Thirsty Planet** raised four million pounds to build Elephant Pumps using this model where 10p on a product provides 10,000 litres of clean water.

£12 pays for one person to receive four days of intensive business skills training including literature in their own language, so £2 a month would pay for two people to be trained every year.