



**Progress report to Dr Wolfgang on project activities from (May –December 2016)  
under the Hwange H2O Initiative.**

**Drilling of Water Drinking Holes for Elephants**

**Grant Amount \$25,500**

**Grant Period: May 2016- Dec 2016.**

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**Introduction.**

African Bush Camps Foundation's goal is to partner with rural communities located in vulnerable wildlife areas to improve their quality of life and achieve long-term conservation through programs focusing on education, community empowerment, conservation and community infrastructure. By directly linking these benefits to tourism, these communities learn to positively value and avail themselves of wildlife and nature as resources readily available to them. In partnership with Dr Wolfgang and Hwange H2O, we have been able to drill and additional borehole and improve our current pumping capacity.



**Background to the water situation In Hwange National Park (HNP).**

In response to the studies on the ground water supply and open source water, in Hwange National Park, supplemented water drinking pans have become more sustainable options to help sustain the wildlife in Hwange National Park. Supplemented pans provide water for about 40% of the total area of the park (14 600 Km<sup>2</sup>). The soil here consists of deep Kalahari sands where there is no surface water in the late dry

season, so only water-independent animal species can survive. Elephants and other animals occupying these regions thus move northwards to the areas where supplemented water pans can sustain them. The beneficial effects of providing an artificial water supply have been noticed, that is huge increases in animals resident year-round in HNP. However, the drawbacks of this artificial system gradually became correspondingly evident through the depletion of natural vegetation, especially around the supplemented water points that are frequented by elephants.

Elephants place enormous pressure on water supplies and the grant from Dr Wolfgang to drill an additional borehole, set up solar units and buy additional generators will enable us to have 24 hours pumping capacity, it will enable us to servicing the water holes and this will go a long way in helping availability and sustainability of water to all the animals beyond just the elephants. The annual cycle of the dry season has begun and the pastures have grown drier and poorer by the day and the need for drinking water has risen. Natural pans have dried out and the hope as it has been for years is now on the pumped waterholes in the national park.

As the African Bush Camps Foundation, we strongly believe that wildlife does not have to trek long distance to find water, hence the funding has helped us in ensuring that there is provision of more ,safe, sustainable water sources for the wildlife.



*Provision of water through more waterholes has resulted in a reduction of the above scenerio where elephants fight for the very little water supply available.*

Using a donation from a well wisher, we have been able to repair a vital component water supply compont in the park, this is the Kubota engine which now stands as a back up facility in case any of our generators or solar powers are down. This is mainly used in supporting the pans within the Somalisa concession. It has been an incredible investment as more volumes of water now cascade into the pan attracting herds of buffalos and elephants including the shy and endangered antelopes such as Roan. K2 has also improved remarkably due to the improved and extended pipes for the drinking hole. This has created large volumes of water to carter for the elephants, Zebra, Giraffes and Kudu popullation.

With the Wolfgang grant, we are now in the process of rehabilitating these front line pans and equipping them with Solar-Powered Pumps, and automated generators for overnight pumping capacity. The generators are fitted with automatic switches that kick in during the early evenings and pump throughout the night . In the morning the timed generator switches off and the solar unit will automatically kick in and pump using solar the whole day. The Masumamalisa Pan is one of these front line pans and is an integral part of our H2O Hwange campaign and with this generous donation work is on course has already started. With the finalisatio of the drilling expected in the next few weeks, the borehole is expected to provide adequate water source for wildlife in a sustainable and conservation conscionable manner.

## **Current :Challenges Ray's Pan**

Ray's Pan is one critical front line pans and is an integral part of our H2O Hwange campaign. With an earlier grant, on this this borehole, we managed to install the Trail Battery system on to the solar unit and it was hoped that this would have ensured that the Pan was up and running before the start of the Dry Season in 2015. The essential goal here was to allow for a dispersal of elephant populations drinking on our concession and in the process assist in the long term conservation of both the vegetation and ecology of the area, as well as the wildlife species.

However, the Solar Battery System has not worked as had been planned. The main challenge has been that the panels are not generating enough power to pump during the day and at the same time charge the batteries with enough power to be able to run the pump overnight. We have resolved that there is incongruence between the battery size, the pump size and the capacity of the solar panels. We are currently manually running a generator overnight as a stop gap measure before we install the automated system.

The contractor who installed this particular pump is being engaged with a view to redo the job or better still convert it to the generator automatic switch set as we are currently using in the other boreholes.

## **Conclusion**

The African Bush Camps Foundation in partnership with Dr Wolfgang will continue to support and advocate for the provision of supplementary water for wildlife since the park is an important wildlife sanctuary and prime tourist destination. The foundation remains committed to fundraising for the provision of supplementary water and its sustainable management so that it is available in safe and sufficient quantities to all wildlife small and big. A detailed report together with the financial breakdown will be shared once all the work is fully completed and finalized.

## **Photo Gallery of the work in Progress.**



***Pic 1.*** Work on the drilling of the Masomamalisa hole has started and is going on well. Now in order to drill in the sandy Kalahari soils, a special kind of drilling machinery and technology is needed so that there is very little disturbance to the soil structure and water supply capacity of the borehole.



Men at work @ Masumamalisa pan.



*The newly purchased generators are automated and have been fitted and linked to the solar system which allows them to run automatically once the solar is turned off. It is timed to run during the night and it switches off during the day. This is currently installed at Chris' Pan.*



*In this picture collage, a breeding head is seen heading towards Chris Span, where the water supply has improved greatly.*

