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**RESILIENT WATERS PROGRAM**



## WETLANDS: A CRITICAL CORNERSTONE TO OUR ECOSYSTEMS

USAID Resilient Waters aims to build more resilient and water-secure Southern African communities and ecosystems. One way we do this is working with local organizations such as the Dambari Wildlife Trust\* based in Matobo Hills, Zimbabwe.

### WHAT IS A WETLAND?

A wetland is an area of land where water is at or near the soil surface for at least part of the year. Wetlands can be natural or man-made. Natural wetlands in the Matobo Hills include *amaxhapozi* (vleis) and *imfula* (rivers and streams). Dams are man-made wetlands.



### WHY ARE THE MATOBO HILLS SO IMPORTANT?

- ~ The water from Matobo Hills drains into the Shashe and Limpopo Rivers.
- ~ Approximately one in every seven liters of water entering the Limpopo River comes from the catchments that rise in the Matobo Hills.



*We have an important role to play in the water security of the whole Limpopo River Basin, which stretches from Botswana to the Indian Ocean!*



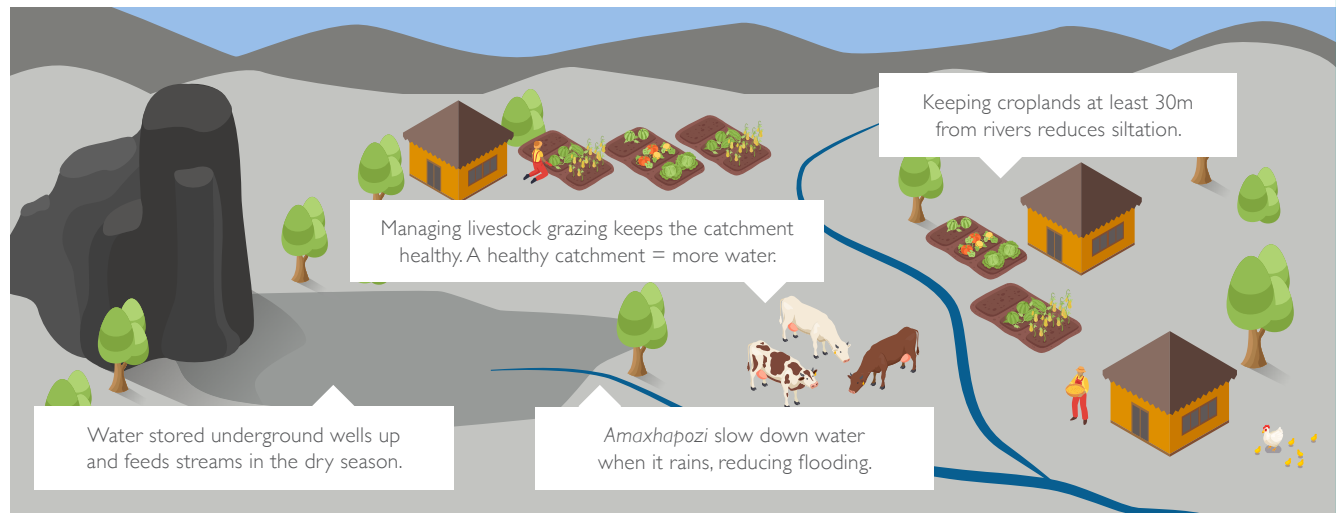
\* Dambari Wildlife Trust is in a consortium with the Inkanyezi Development Trust and the Zimbabwe Humanitarian and Livelihoods Development Trust

## WETLANDS HELP TO PROTECT AGAINST DROUGHTS AND FLOODS

People cannot control the weather. In some years we get just the right amount of rain, but in other years we get too little (a drought year) or too much (floods). Climate change is also happening. Scientists expect that in the future, the Matobo Hills area will experience a more variable climate. This means that there will be more years of drought or flood conditions and the weather will also be hotter overall.

### **Did you know that amaxhapozi can help us through droughts, and help to prevent flood damage?**

*Amaxhapozi* act like sponges. They absorb and store water when rain falls and runs off the mountains. When there is a lot of rain, the *amaxhapozi* slows down the water and prevent rivers from overflowing. The water absorbed by *amaxhapozi* is stored underground as well as on the surface of the soil. When the rains stop, the water slowly wells up from the underground storage through seeps and springs and in healthy systems, feeds into streams and rivers. This water is then available to people, livestock and wild animals.



## HOW LAND MANAGEMENT AND WATER ARE LINKED

Water is life. **Did you know that the way that we manage our grazing lands, croplands, gardens and homesteads affects water availability?**

If we do not look after the land where rain falls (known as the “catchment”), then we lose topsoil that is important for growing food for us and grass for our livestock. This lost soil blocks up rivers and fills up dams, so they cannot store as much water as they should.

Places with lost topsoil, bare ground or where overgrazing takes place can have capped soils, which are areas where a hard crust forms on the soil surface. Capped soils prevent water from sinking into the ground. This means that less water is stored locally and more water (sometimes as flooding!) runs off.

**We should think of wetlands as water banks, where we save water instead of money. If we look after our savings, then we will have enough water for our needs.**

## GREATEST THREATS TO WETLANDS IN THE MATOBO HILLS

In Matobo Hills, the active wetlands are shrinking. Some of the wetland areas used to have water all year round, but because of poor land management, they were drying up faster and faster.

**The biggest threats recorded were:**



**Livestock degraded areas in amaxhapozi, along riverbanks and in grazing lands.**

When livestock are left to roam, overgrazing can result. Bare patches of earth become capped or eroded. Less water is able to sink into the soil, groundwater supplies dwindle and *amaxhapozi* start to shrink. When livestock are allowed to enter into muddy *amaxhapozi* to graze or drink, they can churn up the soil too much. More water is lost to evaporation, so less water is available for plant growth and human needs. Over time, the soil structure can change and plant growth can be affected.







### Growing crops or vegetables in amaxhapozi and along riverbanks.

There are laws in Zimbabwe banning cultivation of crops within 30m of a wetland (river or *amaxhapozi*). These laws have a good purpose and should be observed. People might think that they will grow better crops, but by growing inside a wetland, they reduce the water stored. Water that should be released from the wetland into rivers is lost, rivers dry up and the whole community faces water shortages. Taking water directly from an *amaxhapozi* wetland using pumps to water crops nearby has the same result as growing crops in a wetland.



### Invasive plants, such as *Lantana camara*.

Weedy shrubs and plants such as *Lantana camara* and prickly pear cactus grow readily in areas that are heavily degraded by agricultural activities. Once they get established, they form thickets and prevent other plants from growing. This reduces the amount of grazing available for livestock. Removing alien plants helps to restore the health of the catchment.



## WHAT IS BEING DONE TO IMPROVE WETLAND HEALTH IN THE MATOBO HILLS?

With support from the USAID Resilient Waters Program, the Matobo Hills Consortium, led by the Dambari Wildlife Trust is implementing a program called "Towards Resilience in the Matobo Hills". This project is helping communities to conserve and rehabilitate their environment and to set up resource management plans. Through these activities, people will be better prepared to sustain their livelihoods. Such preparedness is a form of **resilience** or being able to recover quickly from challenges such as drought, floods and economic difficulties.

In Ward 9 Umzingwane and Ward 16 Matobo District, sensitive sections of *amaxhapozi* wetland are being protected from livestock overuse. In these two Wards, and also in Ward 8 Umzingwane and Ward 15 Matobo, holistic land and livestock management practices are also being followed. This method helps to rehabilitate and maintain grazing lands by following planned grazing calendars. Communities are also removing *Lantana camara* to increase rangeland size and improve grass availability.



With better rangeland management come many benefits – healthier livestock, healthy land and better water supply through the year!

