



### Background

The Kavango Zambezi Transfrontier Conservation Area (KAZA TFCA) is situated in the Okavango and Zambezi river basins straddling Angola, Botswana, Namibia, Zambia and Zimbabwe. It is potentially the world's largest transfrontier conservation area, spanning an area of approximately 287,132 km<sup>2</sup>, almost the size of Italy, and includes no fewer than thirty-six national parks, game reserves and forest reserves. Renowned for its diverse wildlife, it is also home to the world's largest elephant population.

Over three million residents live within the boundaries of the KAZA TFCA. Living on incomes well below the national poverty lines, they are dependent on the natural resources, subsistence farming and commercial activities for survival.

### Wildlife-Human Conflict

Drought, floods, civil unrest, natural disasters or war disrupt the normal production and distribution of food, resulting in famines. These factors spur the continuing migration of rural people into areas where resources could be obtained, and are frequently occupied by wildlife. The resultant occupation of the habitat of wild animals by humans leads to conflict. Seasonal animal movements often bring wildlife into conflict with human settlements as they compete for the same water and land resources.

In the dry season, when wildlife move closer to water sources, farmers see significant losses as large wildlife raid crops, break down fences and water tanks, or when predators kill livestock (see inset). The wet season sees a decrease in conflict as communities move away from water sources, simultaneously - wildlife tends to disperse over a much wider area.

### Transfrontier Conservation Areas

Transfrontier Conservation Areas (TFCA) are widely being adopted in southern Africa as a tool for promoting effective management of shared biodiversity across international boundaries and encouraging tourism development for the benefit of rural communities.

Recognising that borders are political rather than ecological, TFCAs aim to ensure that key ecological processes continue to function where borders have divided ecosystems, river basins and wildlife dispersal corridors.

TFCAs offer a means of increasing economic opportunities, decreasing cultural isolation, as well as fostering bilateral and regional cooperation. They encourage the formation of alliances among different stakeholders (governments, the private sector, local communities, and NGOs) as a means of developing consensus and enabling the available finite skills and resources to be maximized in promoting sustainable land use, biodiversity conservation and poverty alleviation in rural areas.



Increasing temperatures and inconsistent rainfall place further pressure on natural resources. Areas receiving less rainfall will most likely suffer drought and fires, while other areas will face more frequent floods of greater magnitude. Such changes will make agriculture difficult and reduce productivity. It will also lead to increased problems with wildlife as fewer resources force animals into human settlements.

### **Destruction of crops**

Crop damage is the most prevalent form of human-wildlife conflict across the African continent. The occurrence and frequency of crop-raiding is dependent upon a multitude of conditions such as the availability, variability and type of food sources in the area, the level of human activity on a farm, and the type and maturation time of crops as compared to natural food sources. A wide variety of vertebrates conflict with farming activities in Africa. These include birds, rodents, primates, antelopes, buffalos, hippopotamuses, bush pigs and elephants. While it is widely recognized that in most cases elephants do not inflict the most damage to subsistence agriculture, they are generally identified as the greatest threat to African farmers. Elephants can destroy a field in a single night raid. Most peasant farmers are unable to deal with the problem of elephant damage themselves and governments rarely offer any compensation.

...during dry seasons elephants can also break into storage bins and steal grain. When they do so the consequences for food security are even more serious. Hippopotamuses can cause substantial damage to fields while feeding at night. Cultivations at risk are those close to rivers or lakes such as rice, vegetables and other crops grown on river-banks during a drop in the water level, or crops grown directly in the water...

**(Food and Agriculture Organization of the United Nations)**



### **CRIDF Involvement**

Formally a transboundary initiative, CRIDF is able to offer KAZA TFCA technical expertise to improve shared water management and climate resilient infrastructure for poor communities in all five SADC countries.

KAZA TFCA has a heavy focus on structures mitigating the impacts of wildlife movement to maintain the integrity of wildlife corridors but the Facility has helped to balance efforts by focussing on the livelihoods of the people impacted by wildlife movement accessing water. Working closely with KAZA TFCA, CRIDF is exploring permanent water provisions to improve the livelihoods of people in the communities whilst reducing human-wildlife conflict. KAZA is now introducing a livelihoods component to their remit as a result of the Facility's interactions with the Secretariat.



The Facility, using an NGO as the implementing agent, will quickly mobilise to build small-scale drip irrigation systems, domestic water supply systems to ensure safe drinking water and wildlife fencing, protecting the communities from wildlife movement.

Communities have shown a willingness to move out of wildlife corridors. Social impact and climate vulnerability assessments will ensure that relocations are done for the greater benefit of the communities.



Some farmers used wooden sleds pulled by cattle or donkeys to transport water from nearby seasonal pans for domestic use, during the dry season these pans dry up and residents are forced to move back closer to the river into the wildlife corridor areas.

### **Benefits**

Through permanent water infrastructure, the Facility will play a major role in reducing the vulnerability of local communities and conflict with wildlife, which can often have fatal consequences. Climate resilient water infrastructure will allow communities to farm away from wildlife corridors in the dry season. Indeed, there may be opportunities for CRIDF to provide alternative water sources for wildlife.

Permanent water structures will give the community assurances of water supply helping them farm productively. CRIDF working hand-in-hand with KAZA TFCA can help preserve wildlife corridors allowing for tourism to establish whilst benefitting communities reliant on natural resources in the region, lifting them out of poverty.

