

Holistic management of African rangelands

Constance L. Neely and Jody Butterfield

The saying goes that if we keep making the same decisions, we will continue to get the same results. So what do we need to change to attain sustainable landscapes and livelihoods? In the case of the Wange community and the *Africa Centre for Holistic Management* in Zimbabwe, a picture of creative partnerships and holistic decision-making is helping restore the natural resource base and empower the community members whose livelihoods depend on it. The term *holistic* is used because the land cannot be viewed separately from the social, cultural and economic aspects of a community.

Degraded lands, diminished lives

The Wange Community typifies rural communities in Sub-Saharan Africa, most of which are plagued with the problems of desertification; drying of rivers, impoundments and boreholes; people living in poverty; increasing spread of AIDS and infectious diseases; constantly failing crops and dwindling livestock; and the exodus of young people. The list can go on, but it need not. Livelihoods are dependent on agriculture, forestry, livestock, wildlife and tourism. Yet land, water and biodiversity, once vibrant in the area and critical to these livelihoods, have been so dramatically impacted by human influences that they have threatened the Wange peoples' lives and way of life.

"Before we didn't know what we could do. We'd seen the land get worse and worse, the rivers stop flowing, the grass stop growing." Selinah Ndubiwa.

Of partnerships and promises

The *Africa Centre for Holistic Management* is a local not-for-profit organization, established by Zimbabweans to reverse this situation meaningfully over time. Located near the Wange Community and just 22 km from Victoria Falls, the Centre has been able to demonstrate on its own property that the land, water and biological resource base can be healed. The Africa Centre is situated on an 8000 ha property comprised of private and state land – known as Dimbangombe. The property is separated from the Wange Community by a patch of state forest land and a main road that runs along the community's western edge to Victoria Falls. Dimbangombe is one of many properties that make up a single contiguous wildlife range stretching from the Hwange National Park in southwest Zimbabwe to the Zambezi National Park in the north, and into the surrounding wildlife reserves of Namibia, Botswana and Zambia. This area is known for its big game – lion, leopard, cheetah, elephant, buffalo, roan and sable antelope – and a rich array of birds.

In 1994, Dimbangombe was donated to the Africa Centre to be used as a Holistic Management demonstration and learning site and training centre for the Southern Africa region. The Africa Centre staff realized that the villagers in the Wange Community would be important partners in this venture and began to build a relationship with them through village meetings and workshops. Community leaders were invited to serve on the Africa Centre's Board of Trustees. Within three years Africa Centre staff had produced 14 village-based trainers – two each from the seven villages nearest to Dimbangombe. Today, all five chiefs in the Wange Community serve as Trustees and commit significant



The picture on the left shows livestock, accompanied by herders, soon after they were brought to the demonstration site and planned grazing began. The picture on the right shows the improved condition of livestock after one year of planned grazing.

Photos: Allan Savory

time and energy to governance of the Africa Centre, which the community views as “their Centre.”

Through its partnership with the Wange community, the Africa Centre hopes to become a model of sustainable resource management that can be replicated in the region and elsewhere in Africa to restore land productivity, diversity of wildlife, and local community livelihoods. As all involved in development know, societal change is difficult and more so in today’s Zimbabwe, so this work is not without considerable challenges. However in this case the Chiefs as Trustees, together with the staff of the Africa Centre and the people in the community, are slowly but steadily making a difference to the lives of the surrounding communities. Wange villagers are learning how to manage their natural resources – wildlife, livestock, crops, and watersheds – in a sustainable fashion, making sound livelihood decisions without sacrificing their cultural values.

Timeless evolution – humans, livestock, and wildlife

Wange villagers are working to make livelihood decisions based on their vision of a healthy ecosystem that includes wildlife, livestock and people living side-by-side. To do that, a new understanding of some old concepts is required.

For instance, overgrazing has been faulted for degrading lands. Yet, perhaps what has not been recognized universally is what overgrazing really is. Overgrazing is a function of *time, not animal numbers* and occurs when an animal returns to a grass plant before it has had time to regenerate. When animals are allowed to roam at will, they will indeed revisit plants before the plants can recover. However, when animals are herded so as to ensure that they do not re-graze plants before they have recovered, then overgrazing is no longer an issue. Time governs the effects of trampling too. Animal hooves enhance soil health when they chip sealed soil surfaces, and knock down dead plants so they can decay more quickly. But they cause damage if animals remain in one place too long or return to it too soon.

By combining small groups of animals into larger herds and planning their daily moves, herdsmen maximize forage production and the benefits of animal impact – the hoof action of the animals as well as the dung and urine that fertilize the soil. By mimicking the wild herds that roamed these lands in the past and keeping livestock moving, they minimize overgrazing of plants, which over time leads to increased ground cover. Livestock are, in effect, being used as a tool for improving soil aeration, water penetration, seed germination, and increasing species diversity and productivity. Rivers begin to flow again because water retention in soils is increased, leading also to more secure and lasting boreholes. These elements, combined with predator-friendly approaches to protecting livestock such as lion-proof kraals, enhance the habitat for large populations of wildlife to grow and flourish.

By taking in starving livestock from the Wange Community, the Africa Centre not only saved the animals, but by increasing the herd size from 100 to 600 animals was able to demonstrate how the herd size can be beneficial, if managed correctly. The land improved significantly in terms of forage production and ground cover over the next two years; and so did the condition of the animals within a single year. The villagers could see the changes



Photo: Allan Savory

Elephants that share the renewed water sources and fodder now available in Dimbangombe.

for themselves and also noted that the Dimbangombe River was flowing once more.

One group of villagers decided to give the idea a try on their own land. Africa Centre staff and a village-based trainer showed them how to plan the grazing for their herd and they more or less kept to their plan through the growing season. By the end of the season they had significantly more forage than previously, but neighbouring villagers soon poached the grass because theirs had run out. However, they are committed to trying again in the coming growing season. Another group of villagers had experienced the same results a few years earlier, managing to grow enough excess forage to provide thatch for their homes for the first time in years, but they lost much of it to poachers and gave up. The Africa Centre’s challenge is to extend education to many more villagers so there will be no need to poach grass from each other. In the meantime, the staff are working with the chiefs to address the problem.

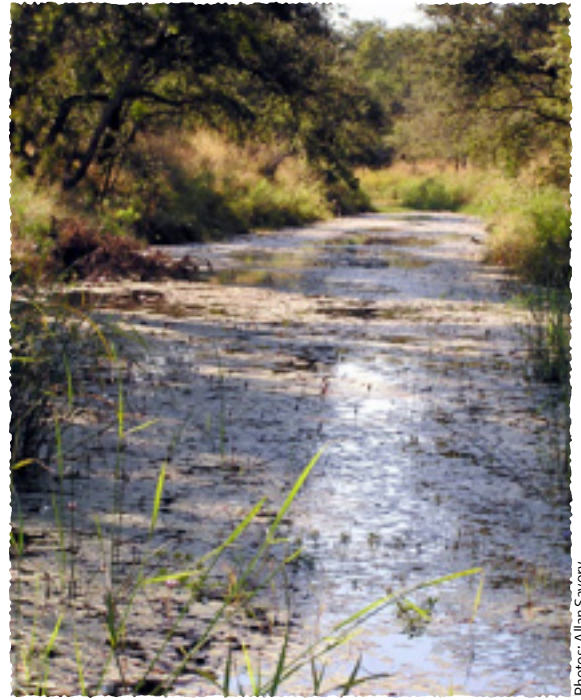
“The people really became interested when they realized it was people who were causing the land to deteriorate, not the animals. If people were doing it then we could fix it.”
Selina Ndubiwa.

The impact of the project at the watershed level is best illustrated with pictures taken in 2004.

“It is amazing how once-dry land can be turned into rich land, in terms of water and ground cover – how it can be revived.”
Community member.

Taking time and decisions

Using Holistic Management, people begin to view their management options in a whole new way, which in turn affects the way they make management decisions. This approach is innovative and yet elegantly simple. When one views the system



Photos: Allan Savory

The picture on the left shows a typical river in the Wange Community. This picture was taken in late March 2004 at the end of an average rainfall year and, as can be seen, the area appeared to be suffering another drought. The picture on the right is of the Dimbangombe River and surrounding land, taken on the same day. Using Holistic Management grazing planning, the rehabilitated river represents “new water” as it was not previously flowing into the river but was being lost largely to soil surface evaporation.

through a holistic lens and monitors all of the ecosystem processes (water cycle, mineral cycle, energy flow, and biological community dynamics) then management addresses the whole. One can manage animals to manage land, water, and biodiversity.

If one practice could renew our communities, land, water and biological diversity, it would be a different world today. Behind the good practices there must be a shift in how we view our ecosystem and our relationship to it. Holistic Management offers the opportunity to simultaneously address the pillars of sustainability – economic, productive, environmental, social and cultural – for positive change. It involves the use of a practical decision-making process that effectively deals with complex systems from a holistic perspective. The process starts with setting a holistic goal that ties together what people value most deeply in their lives with their life-supporting environment. Through a planning process within a holistic framework, and by testing decisions against these values *and* the condition of the environment, people consistently make better decisions for themselves and also the fauna, flora and environment on which all life depends.

The community has a deep desire to change their course and sees the Africa Centre as a key partner for making that happen. Building human and social capital is at the heart of helping today’s communities to regenerate their resource base and become sustainable communities. The Africa Centre is building the skills and capacity for solving local problems through a number of education and training avenues. Through combining training in Holistic Management with training related to village bank groups, village permaculture gardens, game guiding and other ecotourism skills, and by demonstrating that the land can be restored, the community is gaining confidence that their lives in turn can change. Africa Centre Trustee Allan Savory notes:

“The 20 000 acres of land impacted thus far is small in comparison to the over one million acres of the Wange communal lands, but it is their community example and learning site. The combined results of the village banks, the gardens, new herding techniques, and ecotourism education, is creating a shift – toward the community’s vision. This vision will not materialize overnight – we like to refer to this as a 100-year project – but the transformation is underway.”

The community-based conservation programme guided by the Africa Centre serves as a model that now needs to be replicated throughout the communities within the Wange Communal Lands to restore degraded land, water quality, quantity of drinking water, and local community livelihoods.

The Africa Centre has so far trained 13 graduates from South Africa, Namibia and Zimbabwe to be Holistic Management Certified Educators. They are in turn providing training in their own communities. In addition, the Centre’s Certified Community Facilitator Programme develops trainers who work in specific communities in the local language or dialect. These two programmes are beginning to build the capacity needed to replicate the Africa Centre’s work with the Wange Community elsewhere in Africa.

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