



The Commercial Farmers  
Union of Zimbabwe

# AgriZim

Published 12 times a year by the  
Commercial Farmers Union of  
Zimbabwe.

The Commercial Farmers  
Union is proud to announce  
the launch of AgriZim - the  
monthly farming magazine.  
As the publication develops  
over the coming months, we  
hope to create a useful and  
informative magazine packed  
with farming-related articles to  
keep producers right up to date  
with the latest developments in  
the industry. We aim to deliver  
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*"Farming looks mighty easy  
when your plow is a pencil and  
you're a thousand miles from  
the corn field."*

- Dwight D Eisenhower

# AgriZim

VOLUME 1 NUMBER 3 - OCTOBER 2010

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## *How do we finance our farming activities without collateral?*



**T**raditionally loans have been given to farmers based on their assets, primarily their land. Currently this is no longer possible as the collateral value of land has effectively been removed. We need to take heed of what is happening across our border where a prominent South African bank recently announced the launch of a novel way to extend finance to farmers, by using their projected harvest and potential off-take agreements for their crop as security to access finance.

The principle behind the new approach is to have a more holistic approach to agriculture and its downstream value chain. Basically the bank will do value chain financing, with a commodity - such as a crop - as security.

Two of the major risks we face as farmers (excluding illegal eviction) is production risk (crop failure) and price risk. Where we have been able to limit our crop losses through insurance, intervening against prices is much more complex. Although this new approach attempts to remove price risk to both the farmer and the financial institution, it clearly cannot remove price risk from the production cycle. We wait and watch in anticipation as this new initiative unfolds.

As a Union we continue to represent all our members in restoring the collateral value of our land. Without collateral value our land is a dead asset and cannot be used for financing purposes, thereby effectively blocking the potential production of that property. To restore our economy and the value of our land we need to remove the conflict that currently exists. This can be done through acceptable compensation, by respecting property rights (title), restoring and respecting the rule of good law, respecting and enforcing international agreements and rulings and governing this country in good faith for the benefit of all its citizens.

A stylized signature or scribble, consisting of several overlapping, curved lines that form a roughly oval shape with a long tail extending to the right.

## *Institutional Reaction to Replacement of Freehold Title to Commercial Farmland in Zimbabwe by a 99 Year Lease - Part One*

*Efforts to replace freehold title to commercial farmland with a 99-year lease system in Zimbabwe have stalled investment in agriculture, according to The Royal Institution of Chartered Surveyors (RICS)-funded research*

It was not long ago that Zimbabwe's freehold title system for commercial farmland was the envy of Africa and the rest of the world. Recently, however, agriculture has been thrown into chaos as a result of the land reforms introduced by the Zimbabwe government. While the forced occupation of previously white-owned farms is a well known part of this, a less well-known aspect has been the government's attempts, since mid-2006, to replace the existing freehold title system with a 99-year leasehold system.

The potential elimination of freehold for agricultural land has not been well received by key institutions. There is a strong feeling that leasehold does not confer any collateral security on the leaseholder, and, without the ability to borrow against the value of their land, Zimbabwe's new farmers are hamstrung. Without investment in the land, it will be impossible to revive the agricultural sector, once the bedrock of the Zimbabwean economy.

### **Introduction**

Before 2000, freehold land and real estate ownership accounted for about 35% of the total land area of Zimbabwe. This privately owned land, together with government leasehold farms, constituted the area that was registered under the formal cadastre system. However, following its highly criticised fast-track land reform programme, the government decided to declare all formal, large-scale commercial farmland state land,

and in mid-2006, the government announced the abolition of freehold title to agricultural land in favour of a 99-year lease arrangement.

With funding from the RICS Education Trust, Maxwell Mutema who is with CB Richard Ellis is exploring the effects of land reform and tenure security on investments by private firms, looking at Zimbabwe, South Africa and Singapore. In this article, he looks in particular at the Zimbabwe government's attempt to dismantle the freehold title system.

### **Land Survey and Registration**

Before land redistribution, Zimbabwe was fortunate in having a high degree of security of tenure, thanks to a sophisticated system of land survey and registration, which meant that commercial banks and other financial institutions were happy to accept farms as collateral for finance. The system was based closely on South Africa's and was recognised as being exceptionally well ordered and efficient, due in no small part to the fact that each registered unit of land was surveyed and registered on a diagram.

Under the terms of the Deeds Registries Act, all diagrams had to be prepared by a land surveyor and approved or certified by the Surveyor General. This ensured the greatest possible degree of accuracy in all title deeds. Not only is the precise property clearly apparent, but the actual registration of title deeds in the Deed Registry was an irrevocable act conferring



unfettered title on the registered owner, with the advantages of certainty and security.

One former president of a farmers' union in Zimbabwe had this to say regarding titling of commercial farmland in the country: "Land survey to a farmer is what stock inventory is to a businessman. It provides a basis for planning and development of his most valuable natural resource, the land, and enables a comprehensive picture to be drawn of that resource in the form of a farm plan."

### **Introduction of New Leases**

In terms of the new leases introduced by the Zimbabwe government, only the lease agreement can be used as collateral. Section 24.3 of the new lease code allows the tenant to borrow using the leasehold as collateral security only if the precise item offered as security is an improvement "effected on the leasehold by him or her or purchased by him or her as defined in clause 4.1(b)". It should be stressed here that, under existing law, true 'ownership' of improvements, whether through purchase or erection, is not possible unless each and every improvement is legally defined through survey diagrams and registration with the registrar of deeds.



*There is a strong feeling that leasehold does not confer any collateral security on the leaseholder, and, without the ability to borrow against the value of their land, Zimbabwe's new farmers are hamstrung.*

Thus, section 24 of the lease agreement assumes that it is possible to mortgage buildings and "other land improvements" while disregarding the land on which they are built. What is becoming clear is that there are real defects in the lease in terms of its inability to enable lenders to recover borrowed money in the event of default. The main reasons for this are:

- the lease agreement does not qualify as collateral because the property cannot be bought or sold on an open market and therefore has no market value.

- borrowers do default on repayment obligations, but with these leases, the probability of defaulting is even higher because of the likelihood of eviction from the property by the state (given that the state can change landownership without notice or explanation).

- the assets to be mortgaged are ill-defined, and are not recognised by the current laws as immovable property.

- the lender has no power to protect his investment through foreclosure and forced sale.

- valuation of assets for mortgage purposes presents methodological and theoretical problems, since the valuer must

value 'floating' assets which are nevertheless immovable.

In fact, the conditions of these 99-year leases are very similar to the conditional title deeds granted to small-scale commercial farmers between 1930 and late 1960s, and it is noticeable that this sector has remained undeveloped. These conditional title deeds had many restrictions with regards to disposal, alienation and bequeathing of land, and prevented the use of land as collateral to secure mortgages in this sector.

Given all this, it came as no surprise when The Herald state newspaper of 22 March 2007 reported that the banking sector was refusing agricultural loans to holders of the new leases, citing its legal loopholes. So, what do the stakeholders think of them?

### **Farmers**

Maxwell Mutema interviewed 20 farmers who had obtained their farms under the fast-track land reform programme, and found that most of them disapproved of the idea of replacing title deeds with 99-year leases. Three-quarters of them believed that such a lease did not confer adequate collateral security and two-thirds were completely opposed to the concept. Given that government took this decision to appease the 'new farmers', this is an interesting and unfortunate finding for the government. Even the few who had already been issued with 99-year leases reported failing to secure loans because banks still insisted on lending against a title deed rather than a flawed lease.

### **Lawyers**

All the lawyers Maxwell Mutema spoke to were highly critical of every aspect of the lease. They cited major legal deficiencies that would prevent the lease from conferring the collateral security lenders require. For example, the fact that the lessee is not the owner of the land, and the land cannot be sold on the open market, means the land itself is of no collateral value. Anyway, Amendment 17 of the Constitution of Zimbabwe actually renders the 99-year lease null and void in terms of providing collateral, since it decrees that all farm land in the country is state land and as such cannot be sold to recoup any bank loans in the event of repayment default.



*Conditional title deeds have many restrictions with regards to disposal, alienation and bequeathing of land, and prevented the use of land as collateral to secure mortgages in this sector.*



*It was not long ago that Zimbabwe's freehold title system for commercial farmland was the envy of Africa and the rest of the world.*

They were also highly critical of the powers amassed by central government in land administration matters. The widely shared view among lawyers is that most of the land administration responsibilities must be left to appropriate, competent institutions.

#### **Government Officials**

Interestingly the first reaction of most government officials was “do you want my personal opinion, or the official position?”, followed by “this is a very sensitive and delicate issue”. Further probing revealed that most of the public service officials were against the change to leasehold, citing lack of clarity on implementation and operation, as well as huge manpower and financial challenges.

These challenges were made public by the Acting Surveyor General in an article published in *The Herald* on 8 January 2008. Among other things, the article confirmed the sad state of affairs at the Surveyor General's office, with only three registered (qualified) land surveyors where there should have been 23. There were seven trainee surveyors and 13 vacancies.

To be continued... so don't miss your copy of next month's *AgriZim Magazine*. Part Two will look at views of real estate professionals and bankers, plus conclusions and recommendations.



#### **ABOUT THE AUTHOR**

*Maxwell Mutema is a land and property consultant. He holds an MBA in Real Estate and a PhD in Land Management, both from The University of Reading in the UK. In addition he has a Master in Business Administration in Agriculture and the Food Industries from The Royal Agricultural College, Cirencester (UK). His first degree is a BSc Agriculture Honours Degree from the University of Zimbabwe plus a Diploma in Agriculture from Chibero College of Agriculture.*

#### **FOOTNOTE**

*Although this study was made possible through a RICS Education Trust Study Grant the views expressed in this article are Maxwell's.*



## **ADVERTISE TODAY** **AgriZim**

The Commercial Farmers Union is proud to announce the launch of *AgriZim* - the monthly farming magazine. As the publication develops over the coming months, we hope to create a useful and informative magazine packed with farming-related articles to keep producers right up to date with the latest developments in the industry. We aim to deliver quality advertising exposure to the commercial agricultural sector in Zimbabwe.

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# Catfish Farming in Africa

*Zimbabwe has no tradition of aquaculture, although the concept was first introduced as early as the 1950s. The main activities at that time were stocking farm dams and commercial trout farming in the Eastern Highlands. Intensive research was also initiated at the then Hendersen Research Station.*

Most fish farms are relatively small, A large number of farms use manure as the main nutrient input but a significant number use commercial fish feeds. Nearly 75% of farmers produce their own seed while 14%, mainly trout farmers, depend on National Parks for fingerlings. Approximately 70% of farmers are farming tilapia, with an increasing number of farms growing *Oreochromis niloticus*. However, the requirements to obtain permits to import this non-indigenous species have been considered a constraint by some producers. Trout were the next most important culture species, while catfish and carp were farmed to a lesser degree .

In Africa, catfish farming shows financial promise. In a 2009 Reviews in Aquaculture article titled "Use and Exchange of Aquatic Genetic Resources for Food and Aquaculture: Clarias Catfish," authors Uthairat Na-Nakorn and Randall E. Brummett list Cameroon, Kenya, Mali, Nigeria, South Africa, Togo and Uganda among the nations of the world that produce at least 100 metric tons of cultured clariid catfish annually. The Catfish Farmers Association of Nigeria reports that in 2009, this country produced more than 160,000 metric tons of harvested catfish, for a return of 24 billion nairas (\$159 million) on an investment of 10 billion nairas (\$66 million). In addition to serving domestic markets, catfish farmers in Africa pursue opportunities to export overseas, especially to Europe.

## **African Catfish Basics**

Although Africa is home to numerous catfish species, most of these do not lend themselves to fish farming because they are either too small, unable to thrive in artificial environments or not in demand. However, the African sharptooth catfish, or *Clarias gariepinus*, does possess the appropriate attributes.

## **Monoculture Operations**

African sharptooth catfish farms are typically monoculture operations - that is, ponds that do not mix fish species. For

optimal results, monoculture facilities must use specially formulated feed that is 35 to 42 percent crude protein. The feed should consist of animal byproducts, vegetables, vitamins A, B-12, D, E and K, riboflavin and thiamine, folic, nicotinic and panthothenic acid, and assorted minerals.

## **Polyculture Operations**

Polyculture operations raise African sharptooth catfish alongside tilapia. According to the Fisheries and Aquaculture Department of the U.N. Food and Agriculture Organization (FAO), polyculture farming is more efficient than the monoculture method, yielding Africa's catfish farmers a higher return on investment.

## **Pond Density**

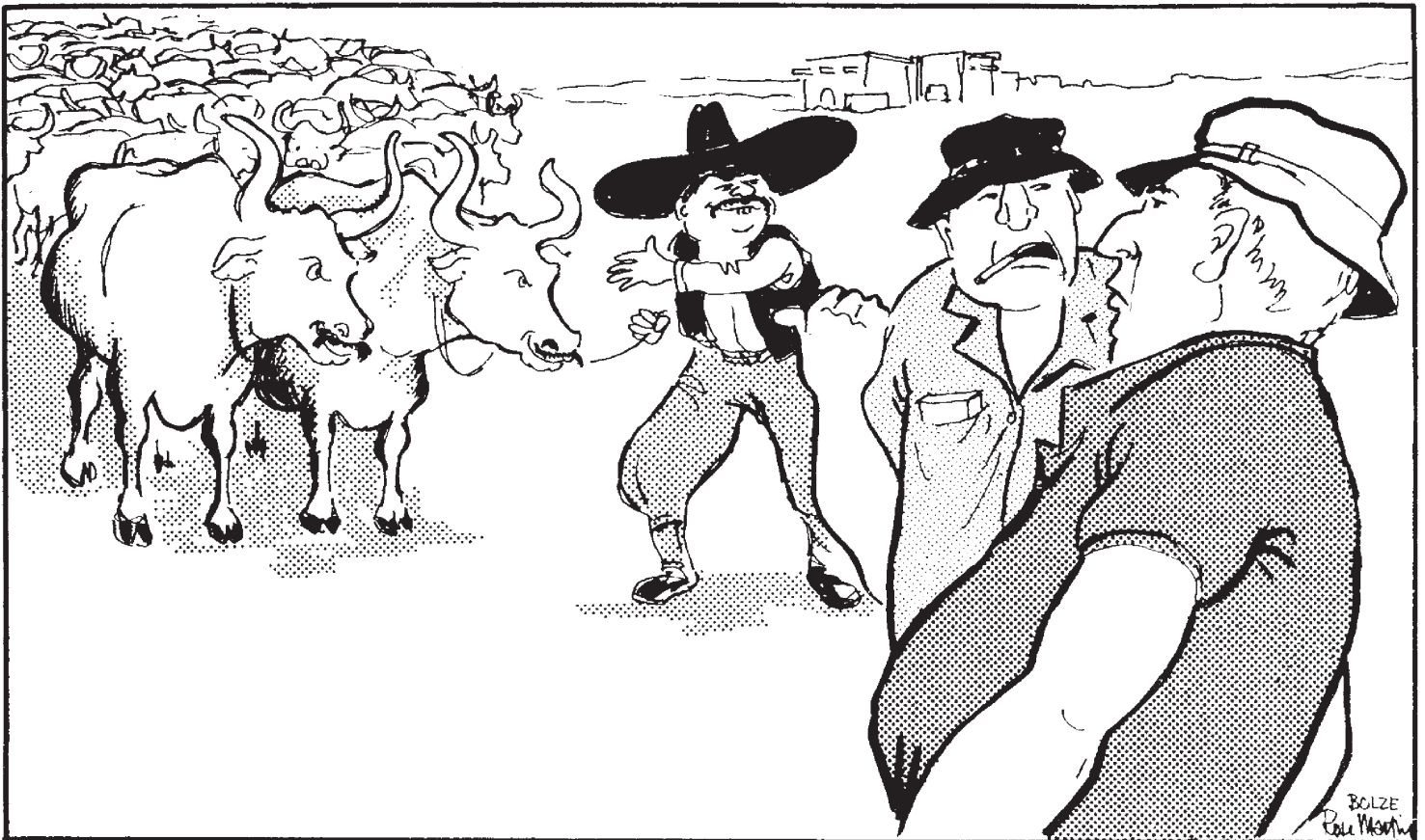
In an effort to maximize profits, farmers of African sharptooth catfish tend to stock their ponds as densely as possible. However, doing so may ultimately prove counterproductive. Although the species is especially adaptable to adverse conditions, overcrowding contaminates the ponds and makes feeding more difficult, resulting in smaller, less healthy catfish. Therefore, the FAO's Fisheries and Aquaculture Department recommends restricting pond density to 10 fingerlings per square metre and thinning out the fish population at regular intervals.

## **Diseases**

In general, diseases do not pose a substantial threat to the farming of African sharptooth catfish. However, some diseases do occur from time to time. For example, the fish may fall prey to "crack head," a potentially fatal condition that is associated with vitamin C deficiency and overfeeding, though its precise cause remains a mystery. Another malady that can kill large numbers of the species is myxobacterial infection, which stems from substandard water quality and injury to the fish during handling. A third disease is aeromonas bacterial infection, which can cause edema, or swelling, in larvae.

# Whenwes

Adapted from the cartoons of Louis Bolze and Rose Martin



"If my old Witbooi and Vaalpens back in Zim heard me calling these two Gonzales and Alphonse, they would take themselves straight to the canning factory."



## Insurance Simplified

*Welcome to our Insurance section, I hope you will eagerly follow up on articles from this section. In this first edition we will focus on risks in farming.*



*There is a risk of crop destruction whilst in the field.*

### FARMING RISKS

#### Understanding Risk

In simple terms, risk is the probability or threat of a damage, liability, loss, or other negative occurrence, caused by external or internal vulnerabilities. To a farmer, a risk exists wherever there is a possibility of getting less than expected returns (revenue). The size of a risk is measured by the frequency and magnitude of loss should an event occur. Some risks happen more frequently and are of small magnitude while some are infrequent but should they happen, they can force the farmer out of business.

Agriculture risks can be broadly divided into the following classes:

#### Production Risks

This is the risk that the farmer's yield will fall below expectations. Yields vary, being affected by a number of external factors, among them weather, pests, and diseases. These can affect the quantity as well as the quality of produce. Adverse events during harvesting can also affect production. Examples: failure to receive enough rainfall, hail, violent winds can affect the farmer's yield; a farmer may reduce the grade of cotton by failing to exercise caution in picking the crop.

#### Price/Market Risks

Input and output price volatility is a major source of risk

in agriculture. If the markets are segmented, the local price variation are usually pushed by the forces of demand and supply and in such cases, the farmer's revenue variations are cushioned by a natural hedge if output is low, prices will be higher and this may reduce the variation in income.

There is also a risk that on the day a farmer wants to sell the prices will be depressed, the farmer can't know the best time to sell his produce. A farmer can buy the inputs at a higher price only to find the prices falling the day after.

Further there are risks related to input prices. The prices of inputs can increase before the farmer purchases or it can fall after the farmer has already purchased.

The farmer is also exposed to the risk of failing to deliver products to the market at the right time, especially perishables, resulting in losses in value. The farmer's produce can be lost before being delivered to the market-for example the vehicle carrying the produce can be hi-jacked, it can be involved in an accident and catch fire -the whole produce may be burnt and the farmer loses the whole value of the crop.

#### Financial and Credit Risks

In farming, a farmer spends today in anticipation of a return tomorrow. The farmer runs the risks of failing to recuperate his expenditure once the product is marketed.

At times, farmers have to deliver their crop only to receive



*Risk of equipment destruction by fire.*

payment later. History has shown that the purchaser may fail to pay-either totally or partially. In cases where the currencies are not stable, movements in exchange rates can also affect the farmer.

Where the farmer finances his activities through a loan, the farmer would be exposed to interest rate risk: the interest rates may increase leaving the farmer to pay more than anticipated.

#### **Institutional Risks**

This is generated by unexpected changes in regulations that influence farmers' activities. Changes in regulations of

financial services, for example, level of price support or income support payment and subsidies can affect profitability of the farm. The farmer is faced with the risk that such regulations will change.

#### **Personal Risks**


Personal risks are those that affect the life and well being of the people who work on a farm. The farmer can lose his personal property (household property as well as personal property like cell phones, laptops, etc) due to fire floods cyclones droughts and theft.

The operation of a farmer creates certain responsibilities for the farmer Failure to meet these responsibilities creates liabilities for the farmer-for example a farm worker can get injured whilst on duty; the farmer will be required to meet the medical expenses. A member of the public can get injured whilst on the farmer's premises-the farmer will be liable for the damage.

#### **Assets Risks**

All the assets owned by the farmer are exposed to the risk of destruction by fire, floods, cyclones and theft. For example Irrigation equipment, irrigation pipes, generators, tractors, motor vehicles, farm implements, can be lost by floods, fire, or during civil commotion. The same applies to livestock, farm houses, buildings and their contents.

These are some of the risk though the list is not conclusive. Next week we will consider strategies

Your feedback will be greatly appreciated. Send to: [okwacha@optimal.co.zw](mailto:okwacha@optimal.co.zw) 

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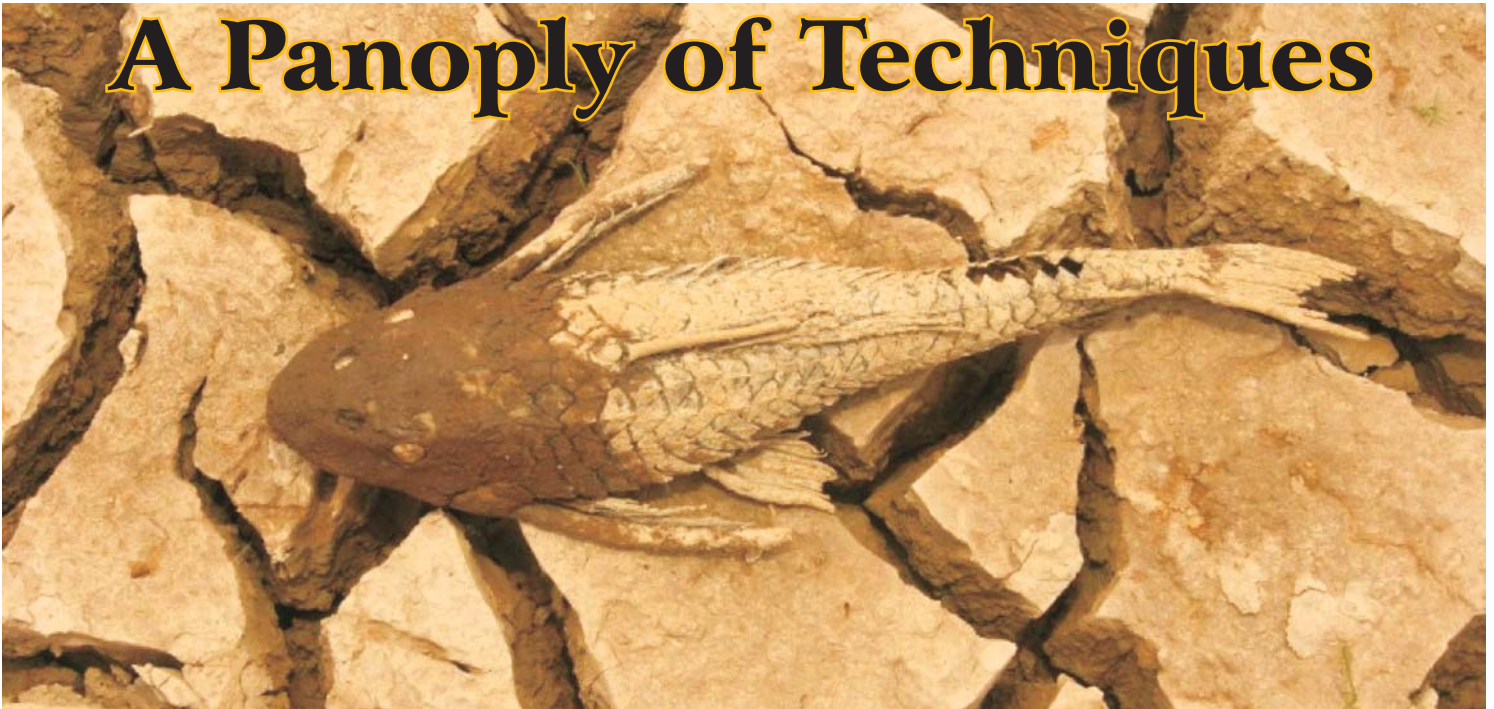
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**Contact Shayne or Ben: [arac@cfuzim.org](mailto:arac@cfuzim.org)**

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# A Panoply of Techniques



***“There are many techniques for managing water and taken in isolation, none is better than the others. It all depends on the goal at hand.”***

The finger is often pointed at the fact that only 4% of arable land is irrigated in sub-Saharan Africa, compared with the 35 to 38% in Asia. It is true that this is very little, but we need to put it in perspective. Firstly there are vast regions in Africa that are very humid, so irrigation is not a priority. Then, some regions have relatively few people: there is not great need for irrigation to intensify production. When all is said and done, it is not a good idea to say that a continent does well or badly from an agricultural point of view because its irrigation is or is not developed. Look at Europe, where irrigation is weak!

Then there is the so-called informal irrigation, which is not taken into account in statistics. On the edges of towns, for example, thousands of farmers irrigate by drawing water from streams using small motor pumps. These are very small farms, so it is difficult to do a survey, but when they are added together they can add up to a considerable surface area. In Ghana, for example, it is estimated that this 'informal' irrigation covers more land than that which is officially registered in the large areas.

There are many techniques for managing water and, taken in isolation, none is better than the others. It all depends on the goal at hand. The big dams offer significant volumes of water, but these are fairly concentrated geographically. They are therefore better suited to larger areas of crops aimed at the market for towns or export. Small-scale irrigation is easier to distribute over the territory. It is a good system for ensuring food security for small-holder farmers who face the risk of water shortages.

But care needs to be taken here – it is often said that what is small is less expensive. In actual fact, there is no evidence to suggest that when worked out per hectare irrigated, small-scale irrigation is cheaper than that of large farms. You have to take into account the other services provided by dams: electricity production, controlling floods, supplying drinking water... which enable the cost of the investment to be distributed. So the choice of techniques for managing water depends on several factors that vary according to the context.



*First and foremost, proper maintenance of pipes, tubes and materials is crucial in order to avoid waste and leakages, which can often cause significant losses.*



*There is no evidence to suggest that when worked out per hectare irrigated, small-scale irrigation is cheaper than that of large farms.*



*Big dams offer significant volumes of water, but these are fairly concentrated geographically. They are therefore better suited to larger areas of crops aimed at the market: for towns or export.*

### Key Figures

4,430Km<sup>3</sup> of fresh water is drawn worldwide each year, but almost half is lost through evaporation or poor management.

70% of water taken from the earth is used for agriculture; in Africa the figure is 86%

15.4 million ha are cultivated under irrigation in Africa, or 6% of total agricultural land, compared with 18% for the world as a whole.

42.5 million ha: that is the total potential for irrigated land on the African continent.

### Waste Not a Drop

Making water available is expensive, so it is crucial to make the best possible use of it. The productivity of water used for irrigation – the quantity of food produced or its value, in relation to the amount of water needed and its cost – is something that is now regularly taken into account. “Producing more food with less water” is a common mantra these days. There are several techniques for reducing the amount of water used. First and foremost, proper maintenance of pipes, tubes and materials is crucial in order to avoid waste and leakages, which can often cause significant losses. It is also important to use techniques that consume little water, for example replacing sprinkler irrigation with drip irrigation. Micro irrigation supplies small quantities of water directly to the base of the plant, so that it can be directly absorbed by the roots. Choosing crops likely to make good profits from the water invested in them is the final consideration to bear in mind. There are plenty of ways to make sure that water really is tomorrow's blue gold. *cfm*

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## *Cowpea Scientists Promise to End African Hunger*

*From Afrol News*



**S**ENEGAL - Researchers specialising in cowpea production are currently gathered in Dakar, Senegal, trying to promote their "revolution" of African agriculture. Cowpeas are "the perfect crop for Africa," they hold.

According to the scientists gathered in Dakar, there are almost no limits to what a wider use of cowpeas could mean for Africa. The "long neglected crop" is said to have "the potential to halt hunger for millions in Africa, sustain the livestock revolution underway in developing countries, rejuvenate nutrient-sapped soils, and even feed astronauts on extended space missions."

"It is hard to imagine a more perfect crop, particularly for Africa, where food production lags behind population growth, demand for livestock products is soaring, and climate change is bringing new stresses to already challenging growing conditions," said Christian Fatokun of the International Institute of Tropical Agriculture (IITA).

But Mr Fatokun, who himself is a cowpea breeder, said, "fulfilling the promise of this marvellous legume requires intensive efforts to deal with threats that inhibit production and long-term storage.

"The good news in Senegal is that researchers will be revealing new and innovative approaches to dealing with the pests and weeds that attack cowpeas at every stage of their lifecycle and with the voracious weevils that devour dried cowpeas," he added.

The cowpea, which is also known as the black-eyed pea, is one of the world's oldest crops. It is currently cultivated on 10 million hectares, mainly in central and west Africa, but also in

India, Australia, North America, and parts of Europe.

Cowpeas are treasured for their high protein content - grains contain about 25 percent protein - leaves and stalks that serve as especially nutritious fodder for farm animals, and the fact that their roots provide nitrogen to depleted soils.

For many in Africa, the crop is a critical source of food during the "lean period" - the end of the wet season when food can become extremely scarce in semi-arid regions of sub-Saharan Africa. Cowpeas provide strong yields, even in hot and dry conditions, and scientists are developing ever more resilient varieties.

In addition to human food security, especially the animal feed potentials of cowpeas in Africa is seen as enormous. Scientists at IITA say new "dual use" cowpea varieties bred to satisfy both human and animal nutrition needs could be generating US\$ 299 million to US\$ 1.1 billion by 2020, given their potential to simultaneously boost livestock production and reduce hunger. *cfu*

## *Flood Ruins Crops as Food Remains Scarce*

*Associated Press*



**N**IGERIA - After water nearly overtook his village in northern Nigeria, Ali Gudinchin jumped into the rushing flood with a knife, cutting away ears of corn from stalks barely rising above the muddy surface.

He ended up with only three sacks worth of food, compared to the 50-odd bags of grains and vegetables he typically grows during the arid region's brief fertile season.

"The insects were biting me as I cut," said Gudinchin, a 50-year-old man who uses his village's name as his surname, which is customary. "It was pain in addition to the pain of losing the crop."

Flood waters that rushed through his home in rural Jigawa state now cover about 34 square miles (55 square kilometers) of farmland there. As the bright sun begins to slowly dry the fields, all the farmers have are ruined stalks and dying plants — the latest strain on food in a region where other nearby

countries face serious shortages. The floods have come at the worst possible time - just before harvest - when it is too late for farmers to replant their fields of millet, sorghum and cowpea, according to the Food and Agriculture Organization of the United Nations.

In northern Nigeria, unusually heavy seasonal rains sent water surging through overflowing rivers. A dam failed in the northern state of Sokoto, flooding out rural pasturelands there and killing about 40 people, according to local media reports.

In Jigawa, local officials blame the inundation on officials opening two dams at reservoirs in neighboring Kano state. Typically, the water released yearly from the dams flows into farm fields across the region known as the Sahel, a band of semi-arid land stretching across Africa south of the Sahara. The waters irrigated the crops of Jigawa, a state home to more than 4 million people.

This time, a huge wave of water from the reservoirs raced through already saturated stream and creek beds, quickly topping over Jigawa state's simple earthen levees, said Umar Kyari, a spokesman for Gov. Sule Lamido.

About 2 million people - about half of the state's population - have been displaced or affected by the flooding that began two weeks ago. *cfu*

## *Africa's Green Revolution will Founder Without Extra Global Funding*

*From the UK Guardian*



**A** decade ago, the world agreed to halve extreme poverty and hunger by 2015 as part of the UN millennium development goals. World leaders gathered in New York last week to renew their commitments for addressing global hunger, even as this goal is slipping away. In fact, due to the steep rise in food prices from late 2007 to early 2009 and the recent global economic crisis, global hunger has actually increased. Today, one out of every six people on earth is undernourished.

African countries are struggling with multiple interlinked challenges: as food prices turn volatile, poor households' access to food weakens; as rainfall and temperature patterns change, small farmers lose yields; and when water is scarce and soil is eroding, yields drop. The rate of growth of yields is falling below critical levels for the first time in three decades.

Together, these trends make food access and production more uncertain. As this happens, small farmers and people living in poverty who depend on agriculture, especially smallholders, are the most vulnerable.

Africa's farmers need improved inputs, including seeds as well as improved soils; they need roads that will connect them to markets; they need agribusiness credit and private sector investments to spur growth; they need facilities to reduce their estimated 40–60% post-harvest losses and they need training and technology to cope with climate change. Most of all, they are yearning for results. If we can boost agricultural productivity, we can accelerate economic growth and raise incomes for communities, countries and the continent as a whole.

A green revolution in Africa depends on locally driven solutions plus reliable donor support. Neither ingredient is sufficient on its own - both are indispensable. *cfu*

## *Zambia Must Export Excess Maize at Uneconomic Prices*

*From The Post Online*



**T**he Economics Association of Zambia (EAZ) has observed that the country needs to export the current excess maize in the country at an uneconomic price to deal with the current bumper grain.

EAZ president Noel Nkoma said the current problems besieging the country's maize marketing could be mitigated if Food Reserve Agency (FRA) was allowed to export excess grain at an internationally competitive price which might disadvantage the economy.

Nkoma said the small consumer base for local maize coupled



with weak storage facilities of FRA might lead the current highest grain output in the last 22 years to go to waste.

FRA finds themselves in a situation where they have to try to offload this maize at a much reduced price in terms of being able to recover their costs because the cost of production in this country still remains very high and the fertilisers have to be imported, fuel transportation still remains very high, Nkoma told journalists during a media briefing.

Nkoma said as the country attempted to export maize at an uneconomic price, local farmers should look at other strong agriculture economies like South Africa which continue to produce enough maize for local consumption and for export.

Nkoma said South Africa had recorded a feat as a net grain exporter in the region due to that country's huge investments in sustainable agriculture.

"We should look at other strong agriculture economies like South Africa who year in year out due to their huge investments in sustainable agriculture continue to produce more than enough, not only to feed their local market but also for export," said Nkoma. *cfu*

## *Mozambique Food Riots Belie African Agricultural Success*

*From African Monitor*



**M**ozambique's food riots in the capital city of Maputo reinforce the pessimistic outlook for Africa's food future, but several places on the continent are producing food surpluses.

Successes in African agriculture are harder to recognize when wheat shortages are causing price increases – and raising the spectre of food riots in African cities.

The riots in Mozambique's capital city of Maputo this week reinforce the pessimistic scenario on Africa's food. Rising prices for commodities imported in large quantities by African countries will inevitably lead to social pain – and backlash. As one Mozambican official with a national farmers' organization said, "These protests are going to end. But they will always come back."

According to Successes in African Agriculture, a new book

from Johns Hopkins University Press, subregions within Africa continue to produce food surpluses, despite various well-known handicaps faced by small African farmers. These surpluses sometimes help to close the food gap in areas where imports typically account for much consumption. Barriers to trading food between African nations are among the most important obstacles to both lowering food prices and raising living standards for small farmers in Africa. A greater reliance on intra-African agro-trade could do wonders for reducing the impacts on Africans of climate change and spot shortages of wheat and other important commodities today and in the years ahead.

Both success and failure co-evolve in Africa; emphasizing one at the expense of the other, in food security or any other modality of human existence, is neither intellectually honest nor morally persuasive. *cfu*

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## Victory for Electricity Consumers

*THE beleaguered Zimbabwe Electricity Supply Authority (Zesa) on Friday said it will comply with an order from Competition and Tariff Commission (CTC) to reduce tariffs and reverse some of the bills it gave to consumers.*



**A**fter a 10-month investigation into complaints that the power utility was abusing its monopoly, CTC last week ruled that the power utility had treated its domestic and commercial clients unfairly.

Consumers complained about Zesa's collapsed meter reading and billing systems, excessive tariffs, overlapping bills, fluctuating and unfair fixed charges, unfair load shedding, arbitrary disconnection of power, poor communication with customers, aggressive and arrogant staff.

"Some of the complaints came to us in written form but others were expressed at various public hearings we held," said CTC chairman Dumisani Sibanda when he presented the findings of the inquiry to journalists.

"Zesa, through its power transmission and distribution subsidiary Zimbabwe Electricity Transmission and Distribution Company (ZETDC) accepted that 95% of the customers' concerns and observations were correct."

Among other measures, the commission ordered that for metered domestic consumers based in Harare and Bulawayo, February 1 last year should be used as the starting point for Zesa's new billing period, and that all outstanding charges arising from electricity consumed prior to that date should be

written off. The country adopted the foreign currency regime in February 2009 and consumers have complained that charging foreign currency for power consumed prior to the date is unfair as the value of the Zimbabwean dollar had been eroded excessively during that period.

"The charges in respect of electricity consumed excluding fixed charges between 1st February 2009 until 30 November 2009 should be in accordance with the Minister of Energy and Power Development's directive, that is, \$30 per month for domestic consumers in high density areas and \$40 per month for domestic consumers in low density areas," Sibanda said. "All excess payments made on the basis of estimated bills and reconnection fees for those consumers whose power was disconnected after having paid according to the minister's directive should be credited to the affected consumers' accounts."

CTC recommended that in respect of metered domestic consumers countrywide with load limiters, Zesa must reduce the fixed monthly energy charges to 57%, this being the ratio of power availed for use by consumers monthly for the period between February and November 2009. From December 2009 onwards, the fixed monthly energy charges for such consumers



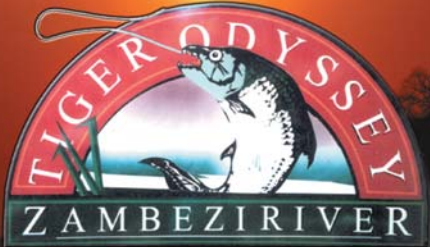
should be based on power available, taking into account load shedding. In respect of all other consumers including industrial, commercial, mining, farming, schools, universities, government institutions, hospitals and other commercial entities, CTC said, they should approach Zesa and submit their electricity consumption where readings are available. Where readings are not available and the parties fail to agree on respective consumption levels, the commission said, a mutually agreed arbitrator should be appointed.

Zesa was also ordered to carry out its load shedding in a fair and equitable manner and advise customers of the basis or reasons for load shedding.

Fullard Gwasira, the Zesa public relations manager said the power utility was ready to comply with the order which was registered with the High Court.

"We have not yet received formal communication from CTC but we are looking at the order with a view towards compliance because it was issued by a legally constituted body," Gwasira said. "But we were already complying with some of the things for example the ministerial directive and fairness in load shedding, it's just that our efforts were being hampered by faults in some areas."

Combined Harare Residents Association chairman Simbarashe Moyo welcomed the development, saying residents had on several occasions tried to engage Zesa on the issues without success. Moyo however said a monitoring mechanism needs to be put in place for full compliance otherwise consumers will continue to be shortchanged. *cfu*




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## AMAZING TALKING COW

A man's car stalled on a country road one morning. When the man got out to fix it, a cow came along and stopped beside him.

"Your trouble is probably in the carburetor," said the cow.

Startled, the man jumped back and ran down the road until he met a farmer. The amazed man told the farmer his story.

"Was it a large red cow with a brown spot over the right eye?" asked the farmer.

"Yes, yes," the man replied.

"Oh! I wouldn't listen to Bessie," said the farmer. "She doesn't know a thing about cars."

## A BUG FLEW INTO A BARN

A farmer was milking his cow. He was just starting to get a good rhythm going when a bug flew into the barn and started circling his head. Suddenly, the bug flew into the cow's ear.

The farmer didn't think much about it, until the bug squirted out into his bucket. It went in one ear and out the udder!

## CHICKEN FARMER JOHN

Farmer John lived on a quiet rural highway. But, as time went by, the traffic built up at an alarming rate. The traffic was so heavy and so fast that his chickens were being run over at a rate of three to six a day.

So one day Farmer John called the local ZRP Member-in-Charge and said, "You've got to do something about all of these people driving so fast and killing all of my chickens."

"What do you want me to do?" asked the policeman.

"I don't care," said Farmer John. "Just do something about these crazy drivers!"

So the next day, the municipality erected a sign that said:

SLOW: SCHOOL CROSSING.

Three days later Farmer John called the cop and said, "You've got to do something about these drivers. The 'School Crossing' sign seems to make them go even faster."

So, again, the Member-in-Charge sent out the municipal workers and they put up a new sign:

SLOW: CHILDREN AT PLAY.

But that sped the drivers up even more!

So Farmer John kept calling, and the sheriff kept changing the signs.

Finally, Farmer John said to the policeman, "Your signs are doing no good. Can I put up my own sign?"

The Member-in-Charge was ready to let Farmer John do just about anything if it would get him to stop calling every day. He said, "Sure thing, put up whatever you want."

And after that, the sheriff got no more calls from Farmer John.

Three weeks later, the cop's curiosity got the best of him and he decided to give Farmer John a call. "How's the problem with those drivers? Did you put up your sign?"

"Oh, I sure did. And not one chicken has been killed since then. I've got to go. I'm very busy." He hung up the phone.

The policeman was really curious now and he thought to himself "I'd better go out there and take a look at that sign... It might be something that WE could use to slow down drivers..."

So he drove out to Farmer John's house, and his jaw nearly hit the floor at what he saw. There, painted neatly on a sheet of plywood was Farmer John's sign:

NUDIST COLONY: GO SLOW -

WATCH FOR CHICKS

## THE YOUNG FARMER

A husband and wife were driving down a road on their way to visit some friends. They came to a muddy patch in the road and the car became bogged. After a few minutes of trying to get the car out by themselves, they saw a young farmer coming down the lane, driving some oxen before him.

The farmer stopped when he saw the couple in trouble and offered to pull the car out of the mud for \$50. The husband accepted and minutes later the car was free.

The farmer turned to the husband and said, "You know, you're the tenth car I've helped out of the mud today."

The husband looks around at the fields incredulously and asks the farmer, "When do you have time to plough your land, at night?"

"No," the young farmer replied, "night time is when I put the water in the hole."



## Biodiversity Loss Explained Simply



*Where our definitions of biodiversity are lacking is in not recognizing that volume or mass of life is as important as diversity to stability.*

***“In terrestrial environments there are four processes governing the functioning of life – nutrient cycling, water cycling, biological community dynamics and solar energy flow to life above and below ground.”***

**T**ragedically, the importance of what is commonly called 'biodiversity' to the very survival of global civilization is today largely trivialized. We have learned little history, throughout which many civilizations in all regions failed, because of environmental degradation - the loss of biodiversity.

Its importance is today trivialized for a number of reasons. First we tend not to heed history, secondly we define biodiversity poorly as the myriad of species on Earth, their genetic diversity and their various environments essentially, and we trivialize the concept. It is trivialized by promoting its importance because species being lost could provide possible future drugs and because mainstream environmental organizations, and thus governments and international agencies as well as media and public generally see and define it largely as the loss of charismatic species. Endlessly we are warned of the rate of species loss greater than any known period in our Earth's long record.

There is another crucial area of error in our mainstream thinking and literature of that is of great concern – blaming biodiversity loss on desertification or land degradation. Desertification is a symptom of biodiversity loss.

Where our definitions of biodiversity are lacking is in not

recognizing that volume or mass of life is as important as diversity to stability, I believe. I learned the importance of volume/mass of life when we set aside two wonderful areas of land in the 1950's for future national parks in Zambia and Zimbabwe, during my early days as a biologist. Almost



*The key to the health of these processes, that really function as one, is governed by the fate of the surface of the soil.*





*It helps to think of soil as a living organism covered with skin like a human - we can live with a certain percentage of our skin damaged, but if too high a percentage is we die.*

immediately, these wonderful areas suffered severe loss of both plant and animal species. Had I not been a biologist studying this I would not have had the opportunity to observe that the loss of species was preceded by a decline in volume/mass of plant life and consequent loss of soil-covering litter. I only understood the significance in hindsight because at the time, like all biologists, my attention was mainly focussed on species. I fell into the trap of interpreting my data to fit the paradigm of my training, thus blocking my understanding of what was really going on.

In terrestrial environments there are four processes governing the functioning of life – nutrient cycling, water cycling, biological community dynamics and solar energy flow to life above and below ground. The key to the health of these processes, that really function as one, is governed by the fate of the surface of the soil – whether it is covered or exposed basically. It helps to think of soil as a living organism covered with skin like a human – we can live with a certain percentage of our skin damaged, but if too high a percentage is we die. So too does soil and thus most life.

It is for this reason – soil cover - that understanding the new concept of the brittleness scale used in Holistic Management is so vital. Full functioning of all ecosystem processes, in areas of the Earth that are perennially humid, both terrestrial and aquatic, always occurs when we apply the tool of rest (no human disturbance of any sort). This is why the environment recovered surrounding abandoned civilizations in humid environments. However, as we move across that scale, as only happens on land, and the distribution of humidity becomes increasingly erratic with longer dry spells during rain seasons



*Unfortunately using fire (rapid oxidation) does not solve the problem while contributing enormously to atmospheric green house gas.*

and with longer dry seasons with no rain, we see the results of resting (or inadequate disturbance) becoming increasingly destructive. This is why the environment did not recover surrounding abandoned civilizations in such areas of the world. We see the adverse effects of inadequate disturbance most significantly in the lower rainfall semi-desert, grassland and savanna environments. This fact assumes enormous importance for humanity and climate stability because these environments dominate the Earth's land area.

The main reason resting (either total rest or too few large herbivores to provide adequate disturbance) becomes destructive is because the annually dying mass of plant material shifts from rapid biological decay to gradual chemical/physical breakdown (oxidation & weathering). This gradual breakdown kills most animal-dependent perennial grasses and, particularly in low rainfall environments increases bare exposed soil between plants. Consequently all four processes – nutrient and water cycling, solar energy flow and biological community dynamics are impaired. We see the results of such biodiversity loss on a mass scale occurring over vast areas of the U.S. Canada, Mexico, China, Australia, Africa, Pakistan, Afghanistan and many other countries. It was to prevent such dying of grasslands that prompted people to burn off the old material thousands of years ago and we continue to do so over billions of acres annually today. Unfortunately using fire (rapid oxidation) does not solve the problem while contributing enormously to atmospheric green house gas.

Nothing I write should be construed as critical of the valiant efforts by many to prevent the senseless slaughter and destruction of charismatic species both directly and through habitat destruction. Such actions need the strongest support of billions of people because this is the only hope of saving such species, until such time as there is greater enlightenment throughout society. *cfm*

