

**INVESTING IN A
CARBON
CONSCIOUS
WORLD**





COP26 – 26th Annual Summit of the Conference of the Parties

COP26, held in Scotland in November 2021, has become a pivotal turning-point in world awareness of the urgency to fight climate change. It was attended by leaders and representative from 197 countries.



UN CLIMATE
CHANGE
CONFERENCE
UK 2021



The aim: to contain global warming to no more than 1.5 °C above pre-industrial levels.

However, the world is currently on course for a temperature rise of 2.4 °C by the end of the century. At the conclusion of the summit, UN Secretary General **António Guterres** stated:

“ *We are still knocking on the door of climate catastrophe. It is time to go into emergency mode.* ”



Numerous scientific reports confirm that staying within 1.5°C of warming will be impossible unless we transform the way we grow, produce and consume food on a global scale.

- Livestock are responsible for 14.5% of global greenhouse gas emissions.
- Between 26% and 37% of global greenhouse gas (GHG) emissions are generated by our food systems
- Around 75% of agriculture's emissions are produced by livestock, including the production of feed for the animals and the associated land use changes

[CLICK HERE](#)



Photo : Brian Ongoro



So-called 'cheap' factory farmed food is, in a very real sense, costing us our earth

The use of soy as animal feed is a major driver of deforestation

The use of soy as animal feed in factory farming is one of the key drivers of deforestation which leads to the release of huge amounts of stored carbon into the atmosphere and massive losses of biodiversity.

In terms of the Global Adaptation Strategy all countries that use soy as animal feed should commit to ending the import of soy, and substantially reducing the use of soy, as a matter of urgency.

<https://ukcop26.org/glasgow-leaders-declaration-on-forests-and-land-use/>

<https://www.ccacoalition.org/en/resources/global-methane-pledge>

Driven by growth in the poultry and pork sector, South Africa's import of soycake increased from 1.6k MT in 2010 to 1.8m MT by 2015, mainly from Argentina and Brazil. This trend in demand continues.

<https://www.technoserve.org/wp-content/uploads/2013/02/technoserve-bmgf-south-africa.pdf>





Huge swathes of land must be irrigated to provide the soy and grains for animals shut away in factory farms.

The grain industry in South Africa comprises maize, barley, oats, sorghum, and wheat. Around 6 million tons of grain are used for animal feed annually.

<https://www.trade.gov/country-commercial-guides/south-africa-agricultural-sector>

The 2020 figures for SA's maize harvest show that 5.4 million tonnes was used for human consumption and 5.7 million tonnes for animal feed.

<https://www.allaboutfeed.net/animal-feed/raw-materials/south-africa-produces-2nd-highest-corn-crop/>

62% of the available water resources in South Africa is used for the irrigation of crops – *Farmer's Weekly*.

<https://www.farmersweekly.co.za/crops/field-crops/new-irrigation-systems-making-do-with-less/>

Based on this figure, roughly half of the water used for irrigation is for crops to feed animals in factory farms.





Monocultures and Agro-chemicals

Industrial livestock's huge demand for soy and grains has fuelled the intensification of crop production.

This, with its use of monocultures & agrochemicals, has led to:



Soil Degradation



**Overuse and Pollution of
Ground and Surface Water**



Biodiversity Loss
including declines in
pollinators and birds



The **Policy Action Agenda for Transition to Sustainable Food and Agriculture**, released at COP26, stated that the global food system...

“*has failed to address growing challenges linked to climate change, environmental degradation of soils and water, biodiversity loss, food and nutrition security and pandemic risks.*”

<https://ukcop26.org/policy-action-agenda-for-transition-to-sustainable-food-and-agriculture/>





The Great Food Robbery

This 161-page resource is compiled by GRAIN

(www.grain.org)

and published by the Pan-African Pambazuka Press

(www.pambazukapress.org),

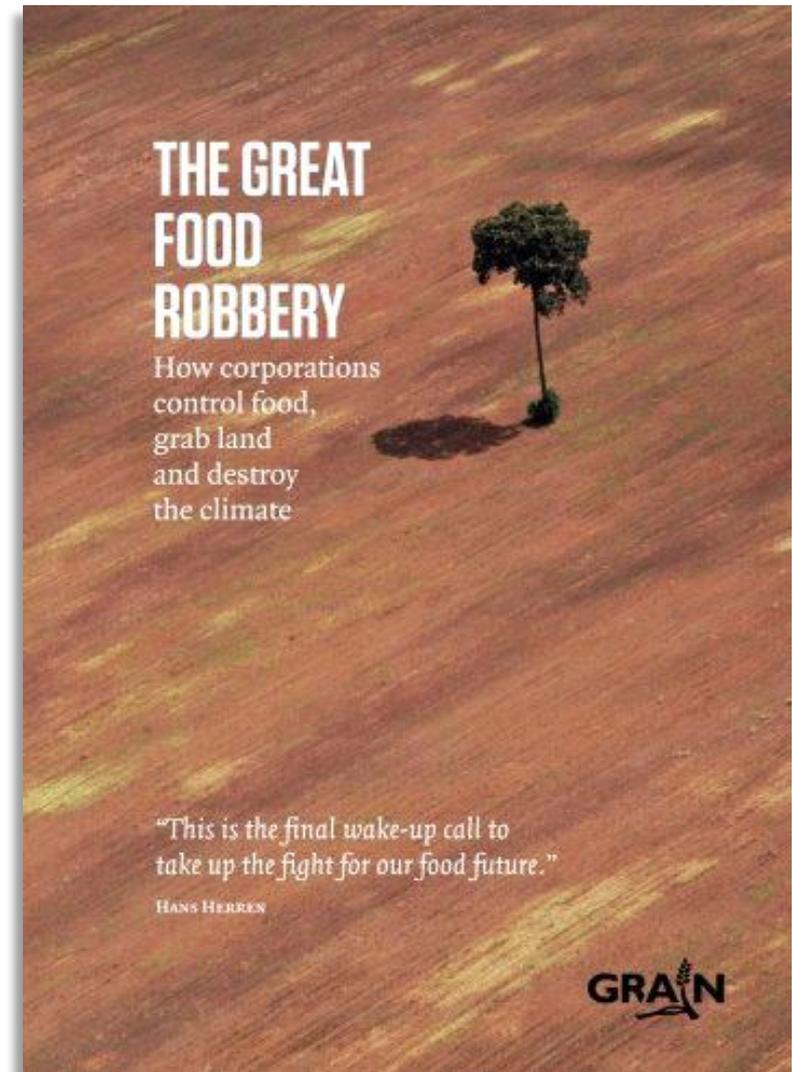
To give context, the book states that the cover “shows a huge Brazil nut tree standing in an immense soybean field in Brazil while a tractor sprays poison.”

[See tractor on back cover on next slide]

The soy harvest helps feed factory farmed animals globally.

It calls on Africa to “wake up and take on the fight for the future of food.”

Front cover





The Great Food Robbery

Stop 'cooking the planet for dinner'

It states:

'Perhaps the most profound and destructive transformation that the industrial food system has brought upon us is in the livestock sector. What used to be an integral and sustainable part of rural livelihoods, has become a mega-industrial meat factory system spread around the world, but controlled by a few.'

"We urgently demand: The replacement of industrialised agriculture and animal production with genuine agrarian reform programmes."

Back cover





African Centre for Biodiversity

In another report titled ‘Africa an El Dorado for South Africa’s Agribusiness Giants’, the Johannesburg-based NGO **African Centre for Biodiversity** states that SA’s big businesses are setting themselves up throughout the continent, bringing promises of food security, job creation, skills transfer and infrastructure development, while ignoring the fact that traditional farming systems on which millions of Africans depend for survival will be displaced.



“The voices of those likely to be most affected have not been heard.”

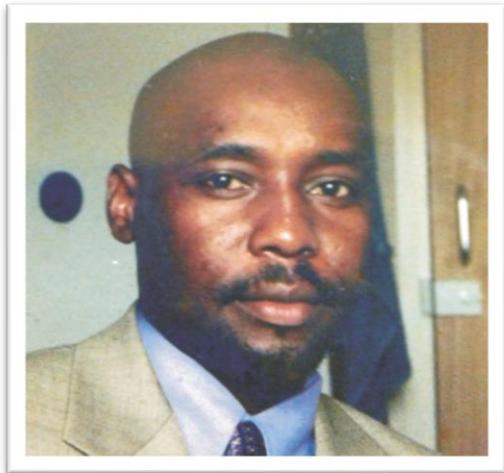
<https://www.acbio.org.za/>



Industrialised Agriculture

Displacement of Rural Farmers

Tanzanian small-scale farmer **Jack Meena** lives on the outskirts of Dar es Salaam, Tanzania.



“*Factory farm products are now sold everywhere. It is all cheap, junk stuff – offered at the expense of our health and the welfare of animals. This is colonialism in another form.*”



Industrialised Agriculture

Industrial agriculture argues that the world cannot be fed without factory farming. However, hunger is a result of lack of access to food, not because there is a global shortage of food. Hunger is also a result of food waste.

Food Waste

In South Africa, some 10 million tonnes of food go to waste every year mostly in landfill sites. That's a third of the 31 million tonnes produced annually in South Africa.



The Council for Scientific and Industrial Research has valued this loss at R61.5 billion.

Food Waste



Another, less visible form of food waste:

Inefficient conversion of soy and grains into meat and milk

Food Waste

“When livestock are raised in intensive systems, they convert carbohydrates and protein that might otherwise be eaten directly by humans, and use them to produce a smaller quantity of energy and protein. In these situations, livestock can be said to reduce the food balance.”

— UN Food and Agriculture Organisation

<https://www.fao.org/3/i2373e/i2373e01.pdf>





Another, less visible form of food waste:

Inefficient conversion of soy and grains into meat and milk

Food Waste

For every 100
calories of human-
edible cereals fed
to animals



Just 17-30
calories enter
the human food-
chain as meat or
milk ^{1,2}

For every 100
grams of protein in
human-edible
cereals fed to
animals



Just 43 grams
of protein enter
the human food-
chain as meat or
milk ³



Industrialised Agriculture

Biodiversity Loss

The *World Wildlife Fund's* 2018 Living Planet report reveals the scale of biodiversity loss.

According to the report, humanity has wiped out 60% of mammals, birds, fish and reptiles since 1970, leading the world's foremost experts to warn that the annihilation of wildlife is now an emergency that threatens civilisation.

The report states that the [vast and growing](#) consumption of food and resources by the global population is destroying the web of life, billions of years in the making, upon which human society ultimately depends for clean air, water and everything else.

“We are sleepwalking towards the edge of a cliff”

said Mike Barrett, executive director of science and conservation at [WWF](#).

“If there was a 60% decline in the human population, that would be equivalent to emptying North America, South America, Africa, Europe, China and Oceania. That is the scale of what we have done.”



Industrialised Agriculture

Livestock's role in the decimation of biodiversity:

Biodiversity is lost in two ways

First, through expansion of farmland into fragile ecosystems and habitats to grow soy and cereals for animal feed. **Second**, the use of monocultures and agro-chemicals to grow feed crops leads to loss of insects, birds, pollinators such as bees, larger mammals and to loss of soil biodiversity which leads to massive reduction in soil productivity.





Like the release of carbon into the atmosphere, Industrialised Agriculture is responsible for another hidden toll...

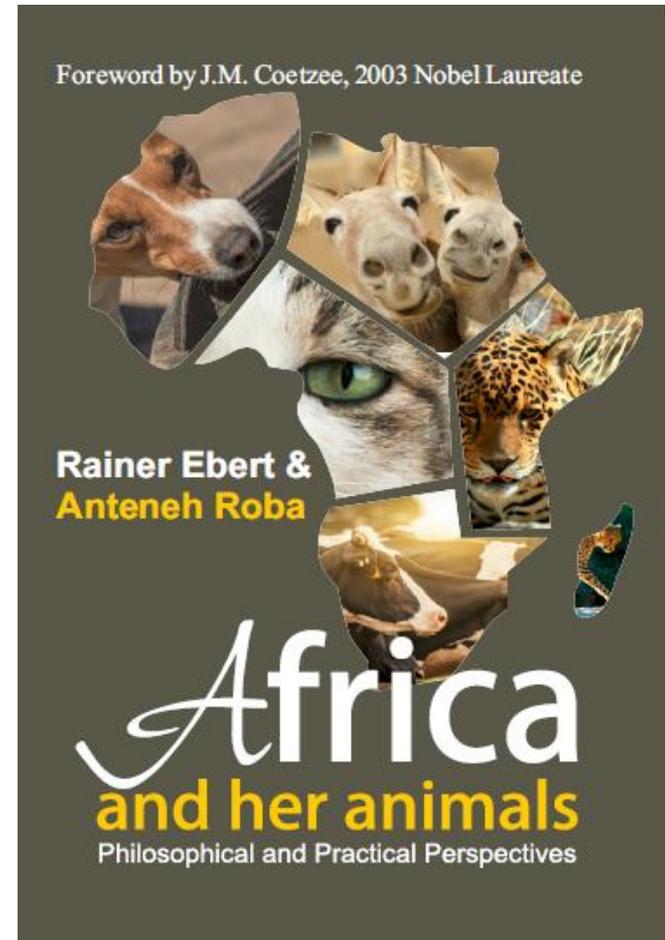
Inhumanity to Animals

For 70 years, since the inception of factory farming, inherent cruelties of this system of animal agriculture have been excused *'in order to feed the poor cheaply'*.

Now, in a first of its kind, the University of South Africa Press has published **Africa and her animals**, a 358-page resource that brings together 28 leading thinkers on our relationship with animals.

The book is edited by *Dr Rainer Ebert*, lecturer in Philosophy at the University of Dar es Salaam, and *Dr Anteneh Roba*, physician and president of the International Fund For Africa. In the preface Ebert and Roba state:

“ *This book is intended as a call upon the reader to take nonhuman animals seriously, as individuals and as members of our moral community. We want to challenge the common view that animals are essentially inferior to humans by showing that there are alternative views, and thereby spark a sustained and authentic conversation on the African continent.* ”





Industrialised Agriculture

Inhumanity to Animals

Animals live in torment on the factory farm, prevented from carrying out their natural behaviours. They are mutilated to 'fit' them for cages and close confinement.





Industrialised Agriculture

Inhumanity to Animals





Industrialised Agriculture destroys the balance of Nature

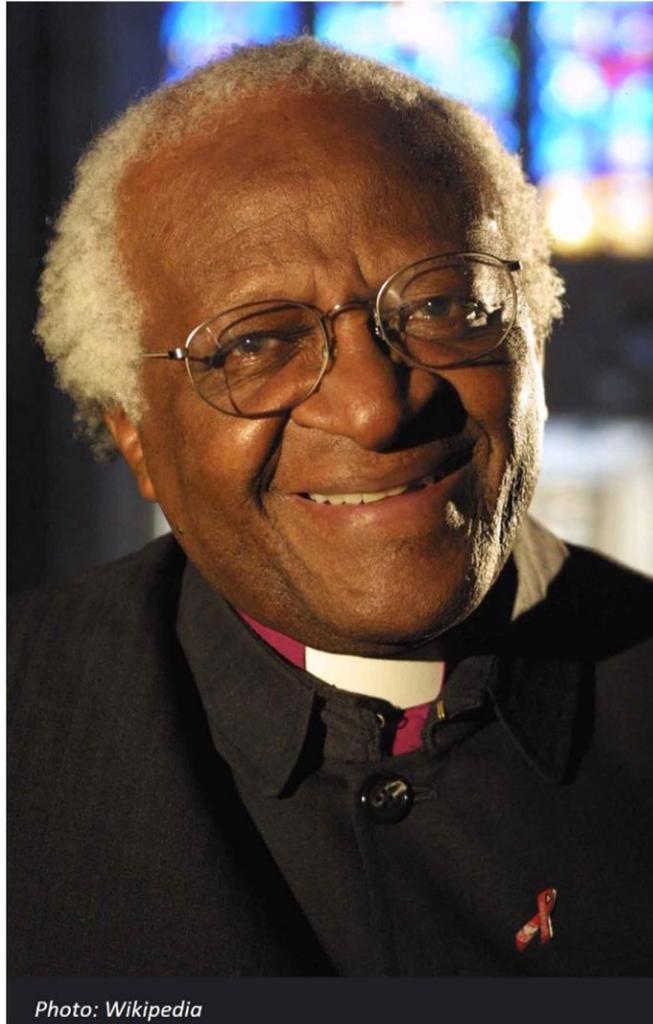


Photo: Wikipedia

The late Archbishop Emeritus Desmond Tutu became the first world leader to include farmed animals in a new vision for the future.

In signing *Compassion in World Farming's Vision for Fair Food and Farming* at his Cape Town office on 15th March 2012, he said:

“I support this Vision for Fair Food and Farming, being so aware as I am of the cruelty that we mete out to animals... I hope we will learn that we are related to the animals and to Nature and if we destroy the balance, we are ultimately going to suffer and pay the price.”

(See www.animalvoice.org online issues, page 2, Animal Voice June 2012)



Regenerative Agriculture: Restoring Nature

The first step towards the mitigation of climate change is to restore life to the soil

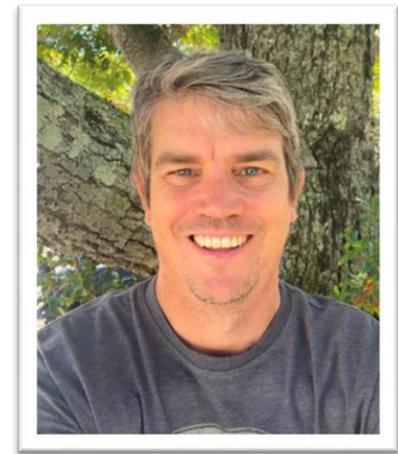
Andrew Ardington,

founder of the *Regenerative Agriculture Association of Southern Africa*, says:

“ For this to happen we need to get the animals out of factories and put them back to fertilising the land with their manure. ”



Animals only make an efficient contribution to food security when they are converting materials we cannot consume – grass, by-products, crop residues, food waste – into food we can eat.



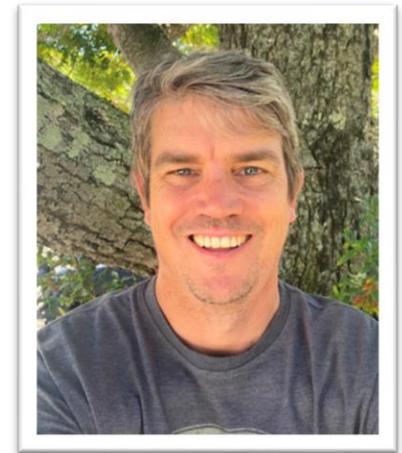


Regenerative Agriculture: Restoring Nature

Andrew Ardington points to the urgency for agricultural reform:

“*Researchers have finally been able to fill in a missing part of the **Planetary Boundaries Chart**, a concept developed in 2009 to show the limits within which humanity can continue to develop and thrive. The cocktail of synthetic chemicals and other man-made ‘novel entities’ such as plastics, have now exceeded the boundary limit.*

We have to relearn how to produce food without using buckets of poisons and synthetic fertilisers. Our future literally depends on it.”



<https://www.theguardian.com/environment/2022/jan/18/chemical-pollution-has-passed-safe-limit-for-humanity-say-scientists?>

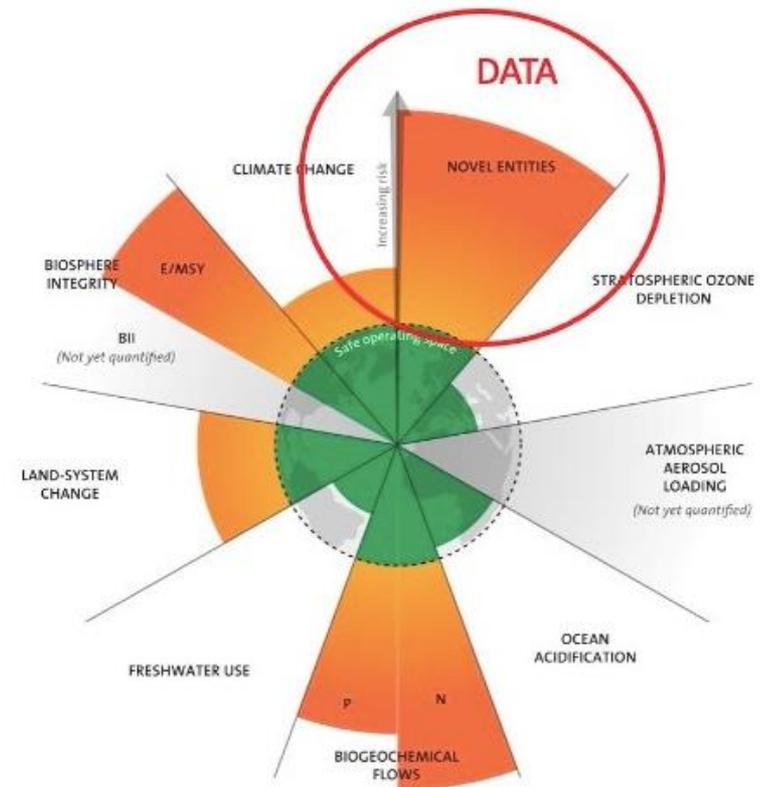
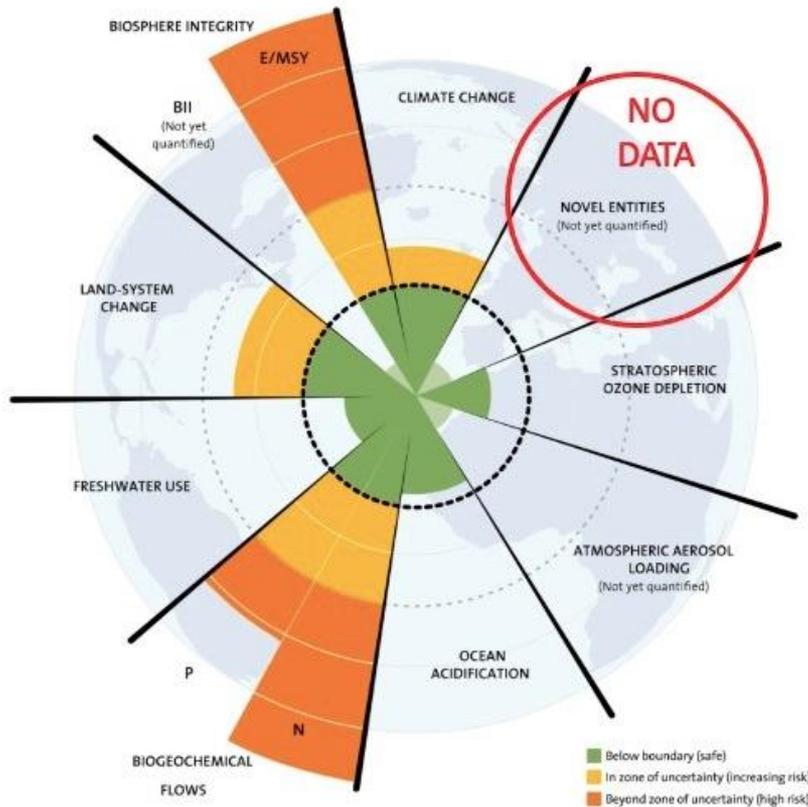
[RegenAgSA](#)

[Facebook](#)



Until now the planetary boundary for synthetic chemical and other novel entities including plastic, had not been quantified

Now it has been — and the news is devastating



The updated Planetary Boundaries framework (2022) showing 5 boundaries transgressed, now including *novel entities.*
Credit: Stockholm Resilience Centre/Azote

<https://www.theguardian.com/environment/2022/jan/18/chemical-pollution-has-passed-safe-limit-for-humanity-say-scientists?>

<https://www.stockholmresilience.org/research/planetary-boundaries/the-nine-planetary-boundaries.html>

<https://pubs.acs.org/doi/10.1021/acs.est.1c04158#>



Regenerative Agriculture: Restoring Nature...

putting carbon (and water) back into the soil

According to carbon consultancy *The Green House*, the regenerative farming operation in Stellenbosch owned by Spier has, to date, sequestered a net 15,886 tonnes of carbon back into the soil. Through regenerative farming methods, Spier has also reduced water consumption in its winemaking process from 3L of water to make 1L of wine, to 1,4L water per 1L wine.

Angus McIntosh: Regenerative Farmer, Spier



<https://tgh.co.za/>

<https://www.portoprotocol.com/case-studies/spier-storing-carbon-in-the-soil-and-water-conservation/>



Regenerative Agriculture: Restoring Nature...

Regenerative farmer and wildlife conservation champion **Bool Smuts** won a major victory for South Africa's wildlife when South Africa's Supreme Court of Appeal ruled in favour of his right to expose cruelty to animals on social media.

On 10 January 2022, South Africa's Supreme Court of Appeal ruled that the public had the right to be informed about the humane or inhumane methods of control of wildlife. This followed Smuts' social media exposure of the deaths of a trapped baboon and porcupine on an Eastern Cape farm.

In dismissing the farmer's claim to privacy over the killing, Appeal Court Justice RS Mathopo said:

“*Members of the public have the freedom to decide which commercial enterprise they support and which they do not. That freedom of choice can only be exercised if activities happening at (the farm) are laid bare for the public.*”

To read more about this case go to **Landmark Leopard Foundation**

[HERE](#)



Bool Smuts

Director: *The Landmark Foundation*





Regenerative Agriculture: Restoring Nature...

Cormac Cullinan

Leading environmental attorney based in Cape Town, South Africa

Author: *Wild Law - A Manifesto for Earth Justice*

Founder: *Global Alliance for Rights of Nature*

Director: *Wild Law Institute*

South African attorney and author, Cormac Cullinan is a leading figure in seeking rights for Nature. He says:

“What if we were to live in a society in which nature had rights entrenched in law? I believe that in the 21st Century, legal systems throughout the world will impose duties on humans to respect and uphold the inherent right of all members of the great community of life we call Earth.”

Read more: [HERE](#)



2021: Environmental lawyers Cullinan & Associates represented *Greenpeace Africa* and others in their **successful court bid to stop Shell's seismic search** for oil and gas off the Wild Coast of South Africa.

<https://www.greenpeace.org/africa/en/press/50259/major-victory-for-wild-coast-communities-shell-interdicted-from-conducting-seismic-operations-with-immediate-effect/>



Regenerative Agriculture: Restoring Nature



Rabobank

In the wake of COP26, **Rabobank**, a global financial services leader in the food and agriculture sector, forged ahead and **set a new bar for its investment and funding partnerships**, supporting an urgent transition to **balanced, land-based and nature inclusive farming**.

[CLICK HERE](#)

In terms of its Animal Welfare Policy, **Rabobank** sets the **Five Freedoms for Animals** as endorsed by the *World Organisation for Animal Health (OIE)*, as **minimum acceptable standards**.



THE FIVE FREEDOMS FOR ANIMALS

FREEDOM
from
HUNGER and THIRST
by ready access to
fresh water and a diet
to maintain full
health and vigour

FREEDOM
from
DISCOMFORT
by providing an
appropriate
environment
including shelter and
a comfortable
resting area

FREEDOM
from
**PAIN, INJURY or
DISEASE**
by prevention
or rapid diagnosis
and treatment

FREEDOM
to
**EXPRESS (most)
NORMAL BEHAVIOUR**
by providing
sufficient space,
proper facilities
and company of the
animal's own kind

FREEDOM
from
FEAR and DISTRESS
by ensuring
conditions and
treatment that
avoid mental suffering



Moving away from factory farming to healthy, regenerative, socially just, humane food systems

Transitioning to Better Lives





The next pandemic...

Peter Stevenson,
Chief Policy Adviser: Compassion in World Farming International
forewarns of the potential of another pandemic...

“*With its crowded, stressful conditions industrial livestock production contributes to the emergence, spread and amplification of pathogens some of which can be transmitted to people.*



The last pandemic before Covid emerged from farm animals. This was the 2009 swine flu pandemic which started in Mexico, close to a major concentration of industrial pig farms.

A recent study concluded that European pig farms — nearly all of which are intensive — host building blocks for pre-pandemic influenza viruses.”

<https://doi.org/10.1016/j.chom.2020.07.006>



Antimicrobial Resistance

New research published in the January 2022 issue of The Lancet shows antimicrobial resistance (AMR) now causes more deaths worldwide than HIV/AIDS and malaria combined.

Globally, around 70% of antimicrobials are used for animals, routinely administered in their feed to stave off disease in the crowded stressful conditions of factory farms. The microbes evolve to become drug-resistant and anti-microbial resistance can be transferred to people, undermining the efficacy of antibiotics to treat serious human disease.

According to The Lancet, recent figures show that *“AMR is a leading cause of death around the world with the highest burdens in low-resource settings.”*

Peter Stevenson notes:

“We need to move to systems in which good health is inherent in the farm methods rather than rely on the routine use of antimicrobials to fight off disease in factory farms.”



[https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(21\)02724-0/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(21)02724-0/fulltext)

<https://www.cidrap.umn.edu/news-perspective/2016/12/fda-antibiotic-use-food-animals-continues-rise#:~:text=Approximately%2070%25%20of%20all%20medically,96%25%20from%202009%20to%202015>

Compassion in World Farming

urges South African financial institutions in the food and agricultural sector to use the power and sway of capital investments to help restore and revitalise our living planet.

COMPASSION
in world farming 
SOUTH AFRICA

CALL TO
ACTION!





ONE HEALTH, ONE WELFARE

PHILIP LYMBERY: Global Chief Executive,
Compassion in World Farming



We thank you.

INVESTING IN A

CARBON CONSCIOUS WORLD



COMPASSION
in world farming
SOUTH AFRICA



Please [donate](#) to **Caring Classrooms**



**Caring
Classrooms**

A division of Humane Education



humane
education

Rekindling the spirit of care and respect for life