

Climate change and the industrialised food system

The Climate Change Bill and the right to food, water and climate justice



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Vanessa Black

Advocacy, Policy and Research Co-ordinator

Overview of our presentation:

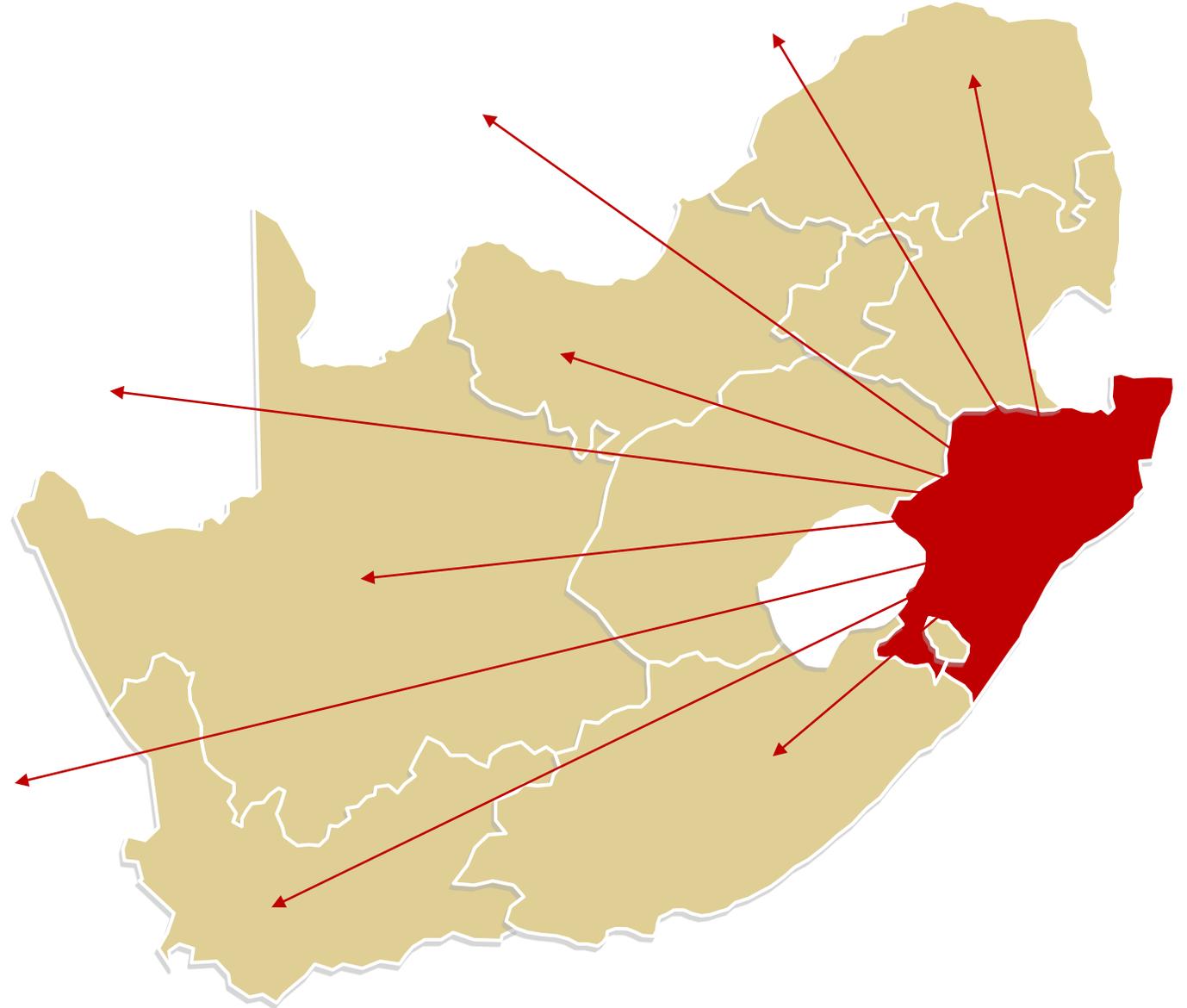
1. Background to Biowatch
2. The critical intersection between food systems, climate change and the Right to food
3. Key comments on the Bill



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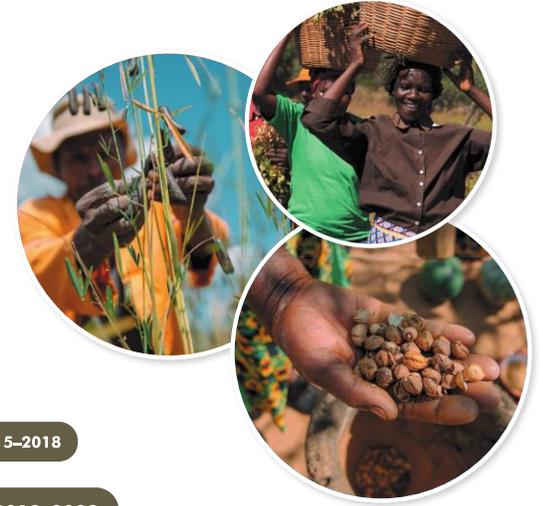
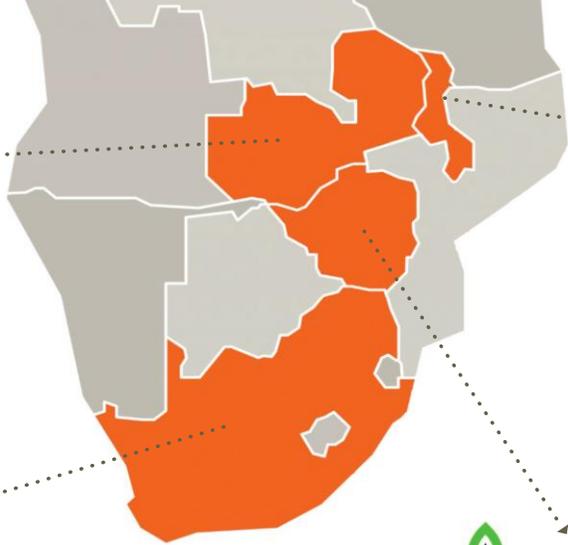
- **Biodiversity**
- **Food sovereignty**
- **Agroecology**
- **Social justice**

Our national research, advocacy and policy interventions are grounded in the experiences of rural people working the land.



SKI

Seed and Knowledge Initiative



PHASE 1: 2015–2018

PHASE 2: 2019–2022

PHASE 3: 2023–2027

By 2027, more supported farming communities, practicing agroecology, have improved food sovereignty, more resilient farmer-led seed systems and revived ecosystems and biodiversity.



The Seed and Knowledge Initiative (SKI) is a dynamic partnership of diverse Southern African organisations committed to securing food sovereignty in the region. We work with smallholder farmers to become more seed, food and nutritionally secure through farmer-led seed systems, improved crop diversity, and the revival of local knowledge systems.



2. The critical intersection between food systems, climate change and the Right to food

1. DAY ZERO

No water for Gauteng by 2030

2. HEATWAVES

More wildfires and more deaths



SOUTH AFRICA ON THE BRINK OF GLOBAL HEATING DISASTER

1.5°C
could lead to

Lower rainfall will decimate crops

4. FOOD SHORTAGES

200km/h winds will rip through SA

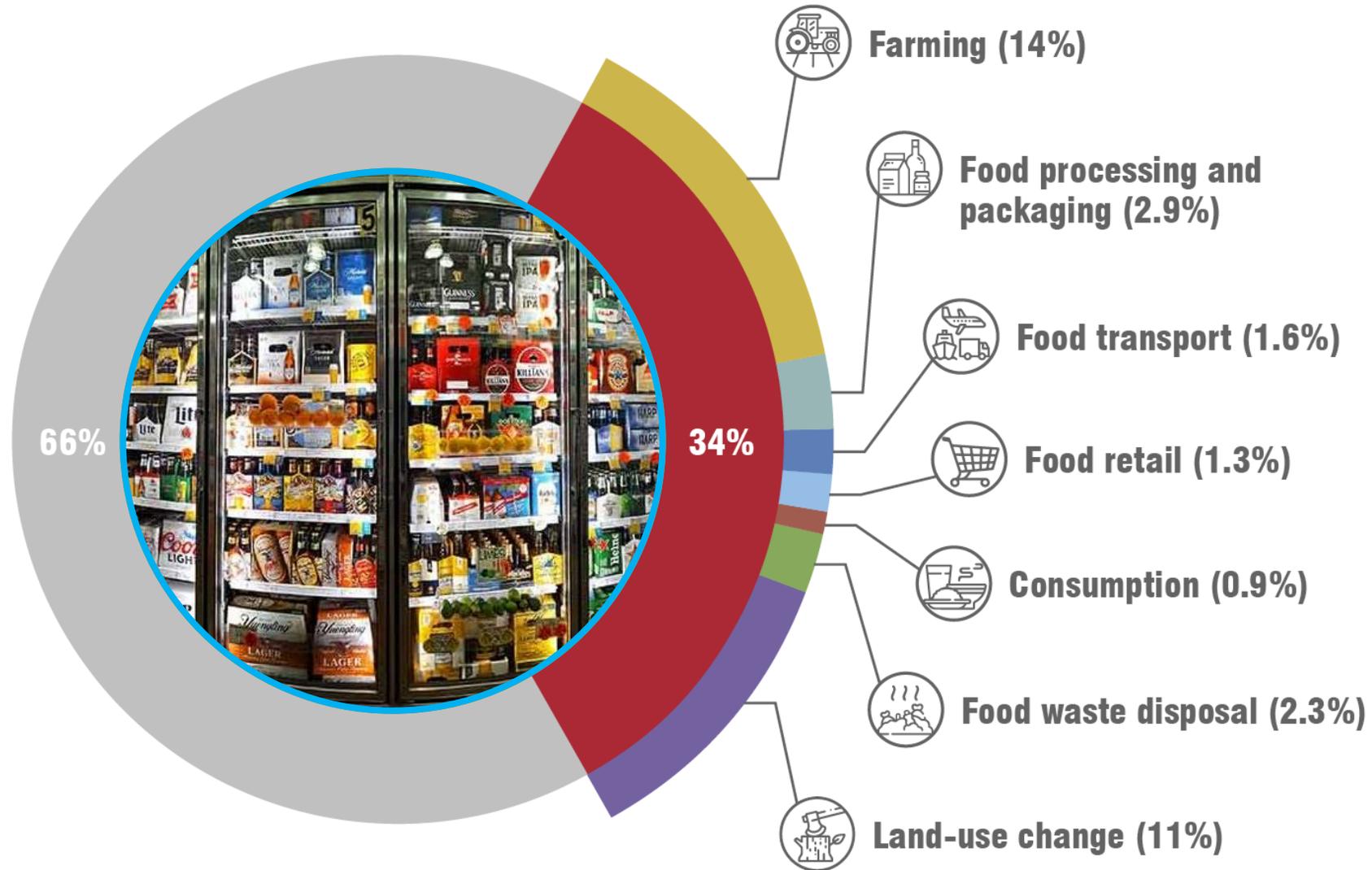
3. CYCLONES

South Africa a climate change hotspot

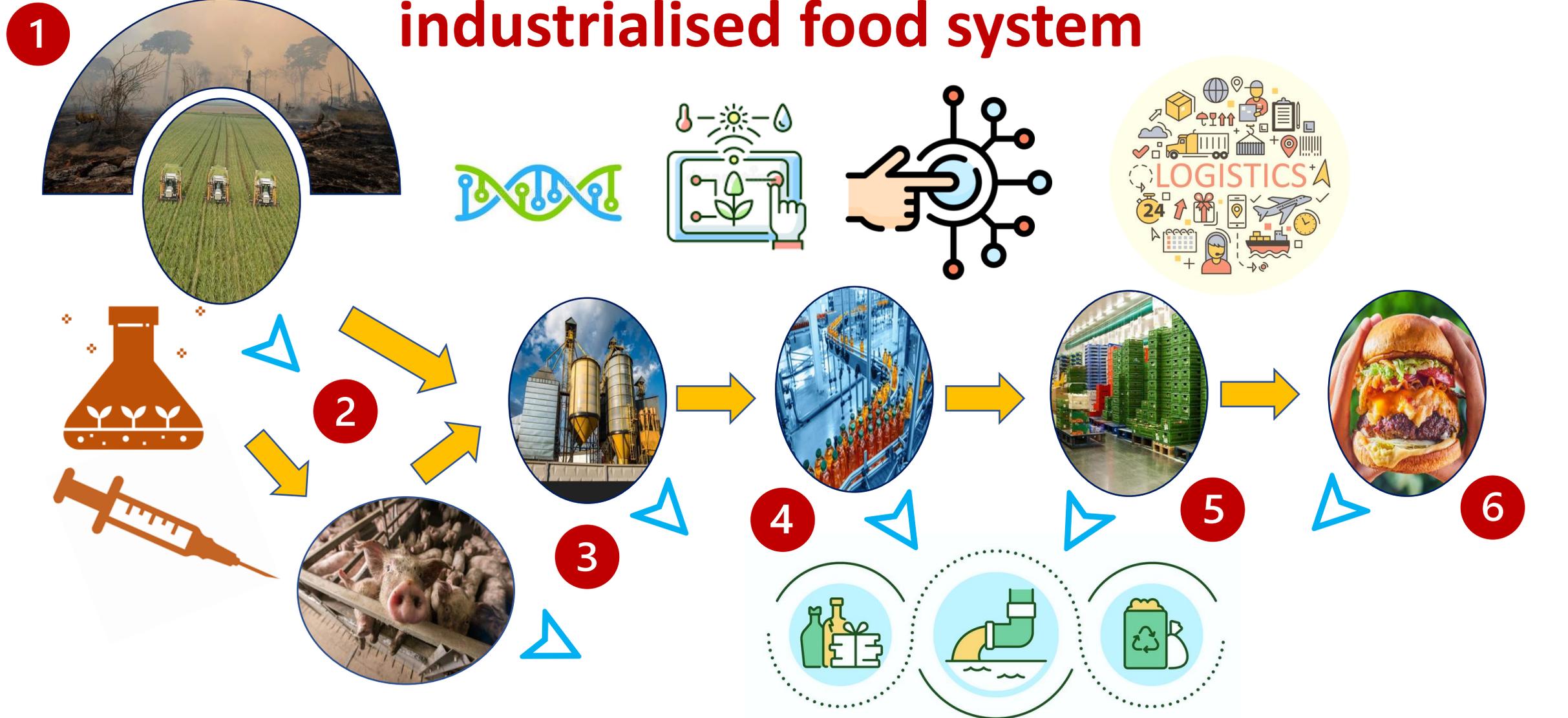
*“We are so vulnerable because we are naturally a warm and dry, water-stressed country with sporadic drought. Now this region is becoming drastically warmer and generally drier. When a warm and dry region becomes drastically warmer and drier, then the **options for adaptation are greatly limited.**”*

Francois Engelbrecht, Professor of Climatology
Wits Global Change Institute

The global food system's impact on climate change



Food commodity value chain in the industrialised food system



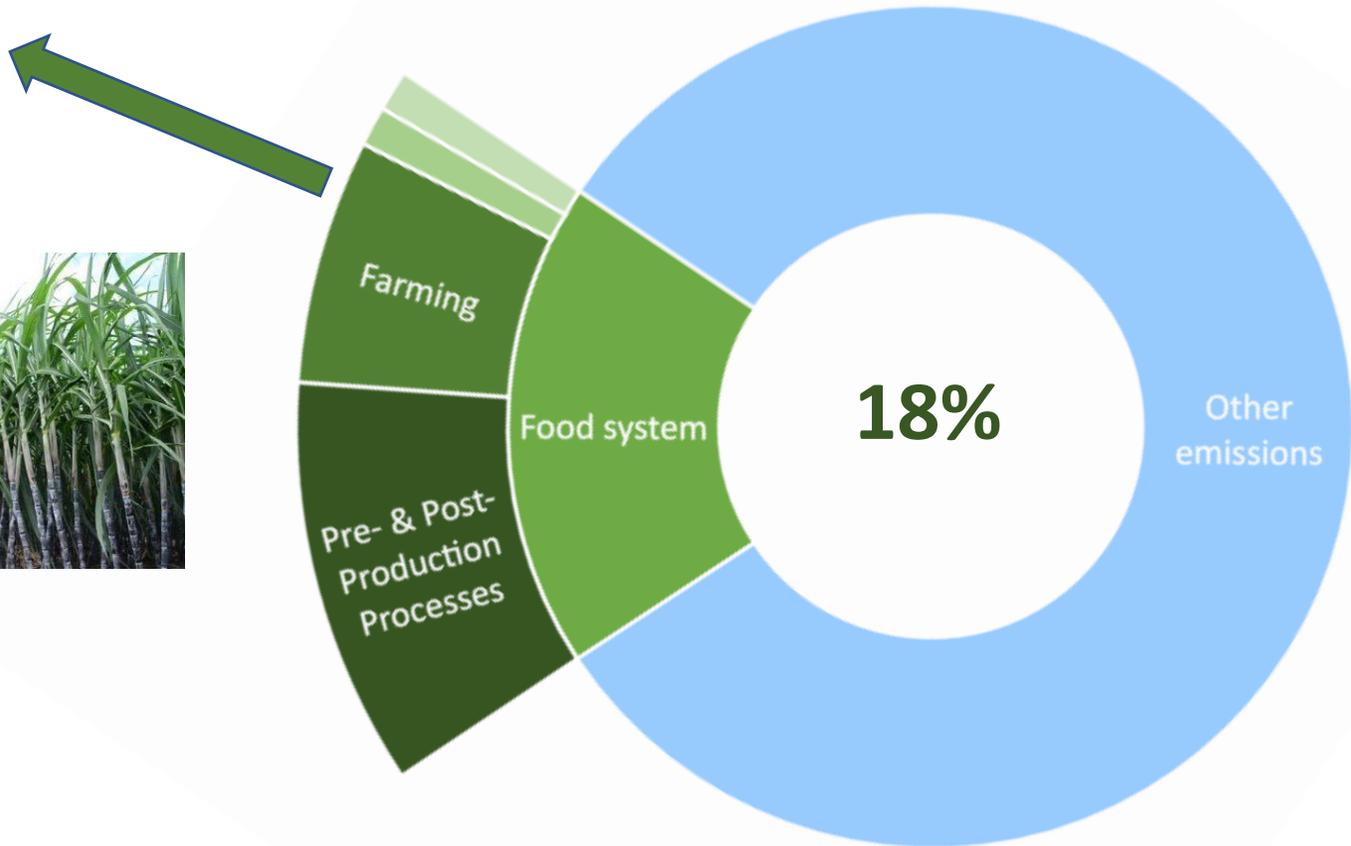
1. Land clearing 2. Production and harvesting 3. Processing 4. Manufacturing 5. Distribution and retail 6. Consumption

South Africa's food system emissions

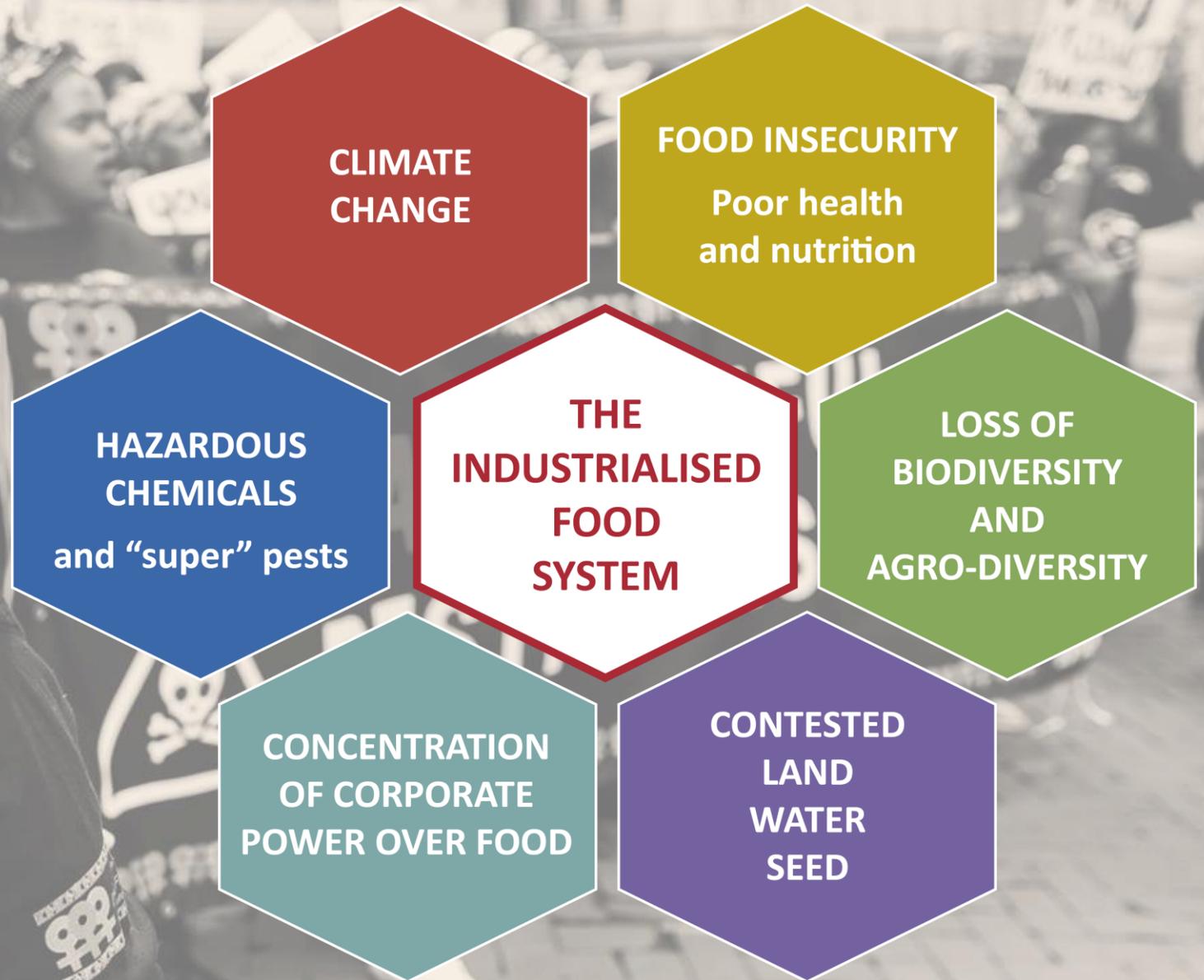
70% livestock

11% field crops

Highest rate of emissions



The global industrialised food system is at the centre of intersecting crises



BAN HAZARDOUS PESTICIDES

We support a Climate Change Bill
that addresses the **urgency of a**
coherent response for a **just**
transition that includes building
climate resilience in the food system
through **systemic change.**



AGROECOLOGY

A sustainable food system that supports and builds biodiversity, nutrition and climate resilience

- **Produces healthy, nutritious food**
- Ensures food and resource sovereignty
- **Conserves water**
- Builds healthy soils
- **Is zero waste**
- Strengthens livelihoods, local and rural economies
- **Supports co-operation and abundance**
- Builds healthy and inclusive communities
- **Values and conserves biodiversity**



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3. Key comments on the Bill

Although Rights to food and water are enshrined in the constitution we have deepening hunger and water crises

Include an additional guiding principle for the interpretation and application of the Climate Act in Chapter 1:

‘the need for an intersectoral approach to transform our food and agricultural systems using agroecological approaches to mitigate and be more resilient to climate change while ensuring the Right of all South Africans to adequate healthy and nutritious food and safe drinking water.’

The need for a regenerative and rights based approach to development for climate, economic and environmental justice

Include an additional guiding principle for the interpretation and application of the Climate Act in Chapter 1:

‘ensuring climate mitigation and adaptation plans contribute to the regeneration of our natural resource base and well-being of all communities; and avoid investments, public programmes and subsidies that create path dependencies that lock our society and economy into development that continues to be based on extractivism and that causes harm to ecosystems and society.’

Whose rights are supported? Mechanisms for conflict resolution

Add an Objective in Chapter 1:

‘Outline conflict resolution mechanisms to ensure that the objectives and principles of this Act are realised in support of a just transition that enables a good life for all South Africans, in the context of climate resilient and zero-emissions development.’

- **Urgency to respond**
- Public access to climate change information
- Public participation in climate response
- Role of & representation in the Presidential Climate Commission
- Penalties for non-compliance

Concern that approaches to adaptation and mitigation outlined in the **2011 Climate Change Response White Paper** are outdated but are still influencing sectoral strategies.

For example, the White Paper does not address systemic interventions and in section 5.3 on Agriculture and Commercial Forestry promotes Climate Smart Agriculture and plantations.

The need to rethink and redesign processes and not just rely on techno fixes

Climate change and the industrialised food system



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What is feeding climate change?

The way we produce and distribute food is causing global ecological and social crises, including one of the greatest threats of our time – climate change. The increasingly industrialised global food system that produces and distributes food from farm-to-plate-to-landfill is responsible for a whopping one-third (31–34%) of all human-induced (anthropogenic) greenhouse gas (GHG) emissions.¹

According to the latest report just released by the Intergovernmental Panel on Climate Change (IPCC), to have any chance of limiting the global temperature rise to around 1.5°C and avoid the most catastrophic effects of climate change, global human-caused emissions must be reduced by nearly half by the end of this decade.^{2,3}

In order to reduce emissions and transition to a just and low carbon society, it is critical to interrogate the industrialised food system. Not only is it destroying livelihoods, landscapes and ecosystems while bankrupting our soils and foods of nutrients, but it's failing to meet human needs as hunger and malnutrition rates soar around the world.⁴

Fundamental transformation of the industrialised food system towards agroecology and food sovereignty is needed in order to urgently reduce emissions and ensure the right to healthy and nutritious food for all.

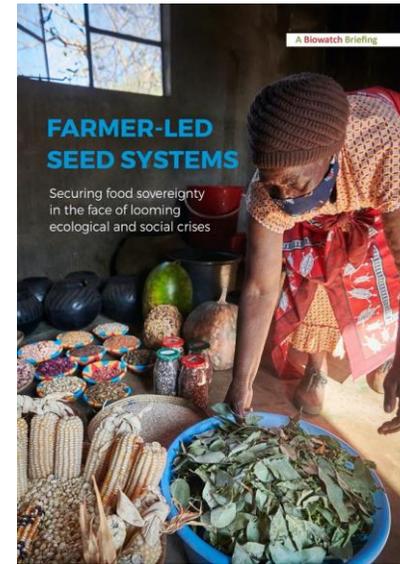
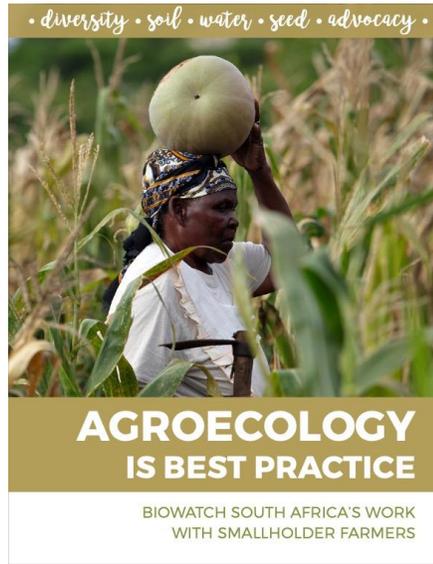
The industrialised food system

The industrialised food system has developed out of the capitalist logic of mass production. Although this began in the late 1800s mainly in the west, many of these aspects were spread to much of the global south in the 1950–60s through the Green Revolution, which sought to structure small-scale farming and food systems by the industrial logic. This was done through marketing high yielding hybrid seed varieties coupled to chemical inputs, mechanisation and irrigation, all to increase production of a few grain crops to supply commodity markets.⁵

Food has been stripped of its social value and the web of intricate connections to local ecologies and cultures and instead has become a commodity, subject to a linear and rationalised process to produce the most product for the least cost and effort. This “value chain” includes the inputs to production, transport, processing, manufacturing, retailing and consumption.⁶ As with other industrial value chains waste is generated at every step – one-third of food produced worldwide ends up as waste.

Like a factory process designed for mass produced objects like cars, the industrialised food system seeks uniformity and standardisation across the chain so that identical products are produced across time and place, and on a mass scale. At the farm level it therefore depends on genetically uniform monocultures. This specialisation extends to

“From farm-to-plate-to-landfill, the way we produce and distribute our food is responsible for a whopping one-third of all human greenhouse gas emissions.”



Download Biowatch publications:

- Climate change and the food system
- Food sovereignty
- Farmer's rights
- Agroecology

www.biowatch.org.za/publications-documents/