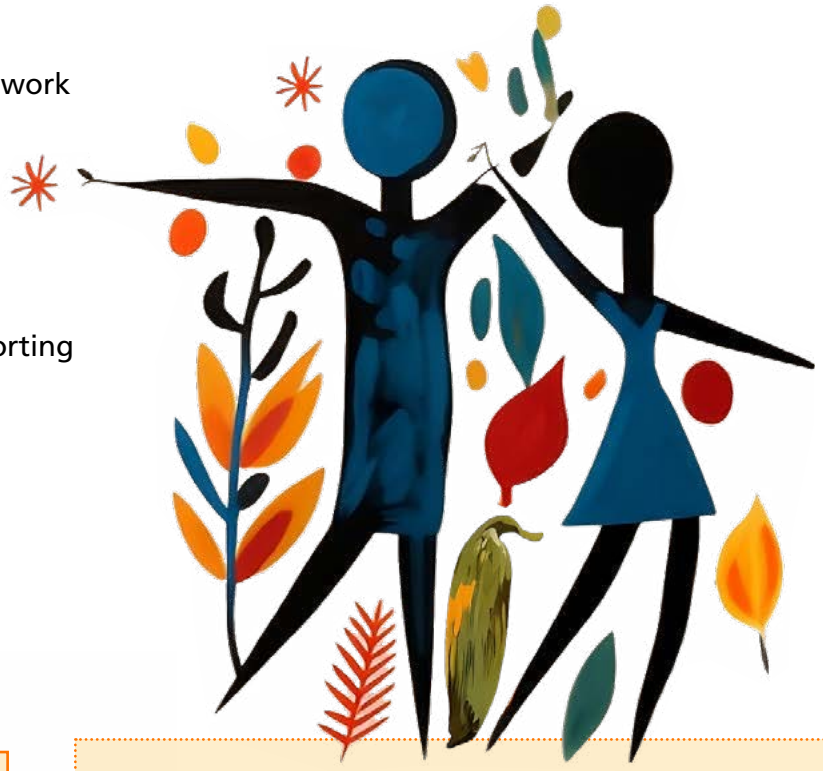
JustTransitions

FACT SHEET 05

Overview of the agriculture sector Climate Change Adaptation and Mitigation Plan (CCAMP)

What is the **CCAMP?**

South Africa is a signatory to the UN Framework Convention on Climate Change, and the Kyoto Protocol under the Convention. By signing, the government has agreed to act on climate change. This includes action to reduce greenhouse gas (GHG) emissions (known as mitigation), and supporting adaptation to expected impacts.



Agriculture in South Africa is very vulnerable to climate change. It also contributes to climate change through emissions. But agriculture can also contribute to the solutions. It can become a sink if agroecological practices are adopted.

Government has identified agriculture as a priority sector for climate change planning in:

2012 National Climate Change Response White Paper
2019 National Climate Change Adaptation Strategy
2022 Climate Change Bill

In 2015, the Department of Agriculture, Forestry and Fisheries published its first Climate Change Adaptation and Mitigation Plan (CCAMP).[1] It is meant to be reviewed after five years, but this hasn't happened yet.

Key sections in CCAMP

CCAMP covers agriculture and commercial forestry. It includes:

- Background on climate change and government's mandate to respond,
- Existing vulnerabilities in South African agriculture and forestry,
- Expected impacts of climate change on agriculture and forestry, and
- Proposed adaptation and mitigation practices.

1. https://www.gov.za/sites/default/files/gcis_document/201409/36063gen7.pdf

Existing vulnerabilities in agriculture and forestry

All farmers face common environmental challenges in South Africa, including:

- High dependency on water and reliance on irrigation. South African agriculture already uses up to 65% of all available surface water.
- Natural disasters, especially droughts, floods and wildfires.
- Poor soils in most places, which are prone to degradation.
- Bush encroachment and invasive alien plants.
- Crop sensitivity to rainfall and frost timing.
- Increasing costs of conventional inputs, including fertiliser, pesticides and transport.
- Environmentally sensitive and economically marginal rangelands.

But different farmers and communities experience the impacts differently, because of different levels of knowledge and resources to respond. Resource-poor rural communities, informal settlements, smallholder farmers, and black women are the most vulnerable.

Expected impacts of climate change

CCAMP shows the expected impacts of climate change in agriculture and commercial forestry.

It is important to note that these are overall expected impacts. But each particular place will have their own conditions. This means that local analysis of impacts and vulnerabilities is needed, and actions must be tailored to the local context.

Temperature and **rainfall** are the most important factors for agriculture. For South Africa, the main impacts are expected to be:

- Hotter and drier conditions in most parts of the country, especially in the west (Northern and Western Cape). There is an anticipated temperature increase of up to 3.5°C over the next 40 years.
- Increased rainfall variability, especially in the west and north of the country.
- Conditions are expected to be slightly wetter in the east, especially in the mountainous areas of KwaZulu-Natal and the Eastern Cape.
- An increase in the number and severity of extreme weather events, such as droughts, floods, heatwaves, and wildfires.

Fact Sheet 4 provides more information on the expected impacts of climate change in agriculture and the food system.

Adaptation

CCAMP proposes many different sustainable farming practices for adaptation. Examples given in CCAMP include no tillage or reduced soil disturbance, permanent soil cover (for example through mulching or cover crops), multi-cropping, integrated crop and livestock production, crop diversification, more use of indigenous species, and water harvesting.

The CCAMP uses Climate Smart Agriculture (CSA) and Conservation Agriculture as the framework, but many of the proposed practices also align with agroecology. But the CCAMP does not include anything on the just social and economic transformations that are a core part of agroecology.

Fact Sheet 6 provides more details on adaptation in the food system, and agroecology as part of the solution.

Mitigation

Reduction of GHG emissions is an important part of an effective response to climate change.

Information in CCAMP on emissions is limited to agriculture and commercial forestry only. It does not consider emissions in other parts of the food system.

CCAMP shows that the main sources of emissions in agriculture are from:

- Livestock (digestive processes and gasses released, especially by cattle)
- Land use change (especially from grasslands/forests to agriculture)
- Tilling soil with heavy machines
- Burning stubble and trash (like sugarcane fields after harvest)
- Fossil-fuel use and agricultural machinery/equipment

CCAMP says:

- REDUCE GHG emissions
- REVIEW agriculture policy to include actions on mitigation and adaptation

Limits of CCAMP

Overall, the CCAMP provides useful information, analysis and suggestions but it also has weaknesses.

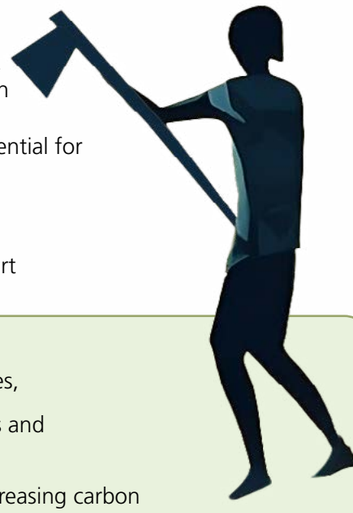
1. Farming model

Large-scale commercial agriculture is seen as the norm. CCAMP has no critical analysis of the commercial sector, and expects the market to solve climate change. There are no specific targets for reduction of emissions.

Smallholder farming is seen as unviable to begin with, and climate change will only make this worse.

CCAMP suggests that farms must get larger to survive. It tends to blame communal livestock and small-scale crop farmers for environmental degradation.

Climate change does pose a threat to smallholder farming. But smallholder farmers are key to a just transition. Agroecological production is an important part of the solution. CCAMP does not recognise this potential for smallholders.



2. Conceptual framework

CCAMP's framework is Climate Smart Agriculture (CSA).

CSA pillars are defined as:

i) increasing productivity and incomes,

ii) enhancing resilience of livelihoods and ecosystems, and

iii) removing GHG emissions and increasing carbon sequestration.

These are very broad, and allow for many different approaches, ranging from agroecology through to corporate greenwashing. CSA does not propose any fundamental change in the structure or control in the food system.

A just transition and agroecology are far stronger frameworks. These cover environmental, social and economic dimensions. These concepts promote progressive transitions towards food sovereignty and agroecology.

3. Emissions and mitigation

CCAMP says that agriculture produces only 5% of South Africa's total emissions. But this calculation is based on deducting the major carbon storage from forests and grasslands. This gives a false picture of agricultural emissions.

The CCAMP figure also does not include emissions from the wider food system, such as fertiliser production. Energy and transport, manufacturing, waste disposal and others. When these are added, emissions from the food system increase to around 18% of the total for South Africa.

Specific targets for reduction of emissions should be set for the commercial agriculture sector (and the whole food system), whether or not 'the market' demands them.

4. Scope of CCAMP

CCAMP looks only at agriculture and forestry. But in reality, these sectors are strongly related to the wider food system, fisheries, biodiversity, land, and water. There is a need for effective cross-departmental coordination for integrated plans across these sectors.

CCAMP points to the importance of integrating agricultural production into wider landscape and ecosystems planning and management. But more detail is needed on how this can happen, including the importance of participatory processes.

Smallholder and homestead farmers, workers, and social movements must come into the discussion so that CCAMP responds to their priorities and needs.

Fact Sheet 2 provides more information about the food system, and **Fact Sheet 3** gives more detail on food system emissions.