



agriculture, environmental affairs,
rural development and land reform

Department:
agriculture, environmental affairs,
rural development and land reform.
NORTHERN CAPE PROVINCE
REPUBLIC OF SOUTH AFRICA

JUST TRANSITION FRAMEWORK IMPLEMENTATION WORKSHOP 20 APRIL 2023







CONSTITUTION

- Everyone has the right;
 - to an environment that is not harmful to their health or well-being;
 - to have the environment protected, for the benefit of present and future generations, through reasonable legislative and other measures that
 - i. prevent pollution and ecological degradation;
 - ii. promote conservation; and
 - iii. secure ecologically sustainable development and use of natural resources while promoting justifiable economic and social development.

DEFINING CLIMATE CHANGE

Climate change: means a change of climate that is attributed directly or indirectly to human activity that alters the composition of the global atmosphere and that is in addition to natural climate variability observed over comparable time periods(South Africa Climate change Bill, 2018)

PROBLEM STATEMENT & CONTEXT



- Large proportion of SA's population has low resilience to extreme climate events (poverty; high disease burden; inadequate housing infrastructure and location)



- Climate change generated events exacerbate existing socio-economic challenges, inequalities and vulnerabilities



- Much of Northern Cape has low and variable rainfall



- A significant proportion of surface water resources is already fully allocated



- Climate change impacts on food security and local livelihoods



- Climate change is an environmental, developmental, economic and a social threat

SOURCES OF GHG EMISSIONS

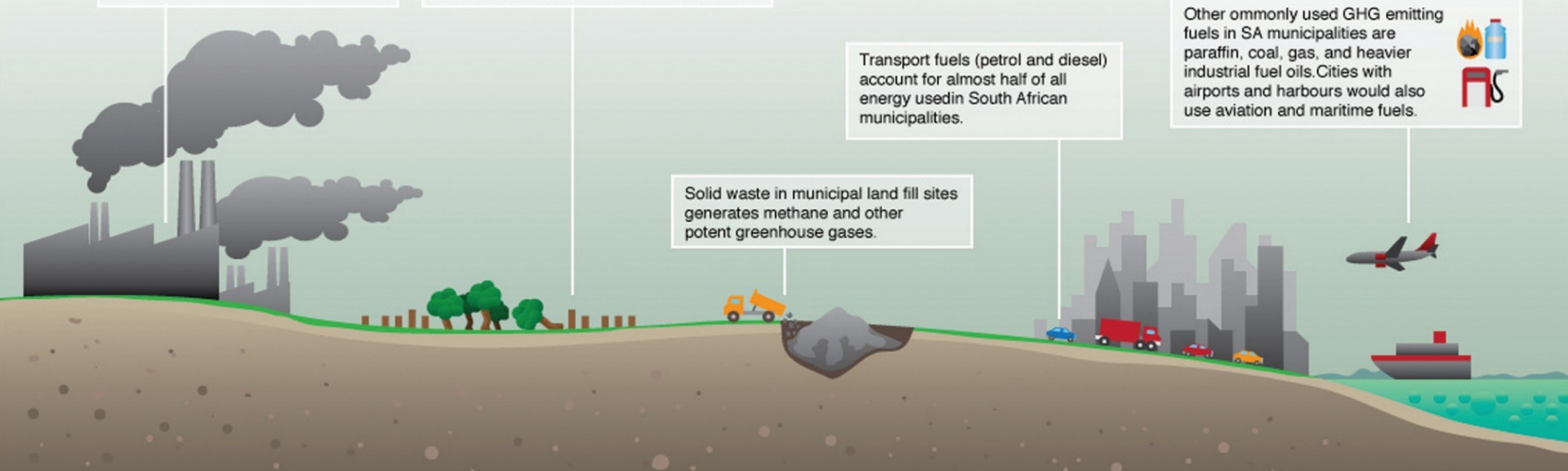
Most GHG emissions in South Africa come from the use of coal-generated electricity.

Agricultural practices and land use changes, such as cutting down of bush and forest, also contribute to GHG emissions rates.

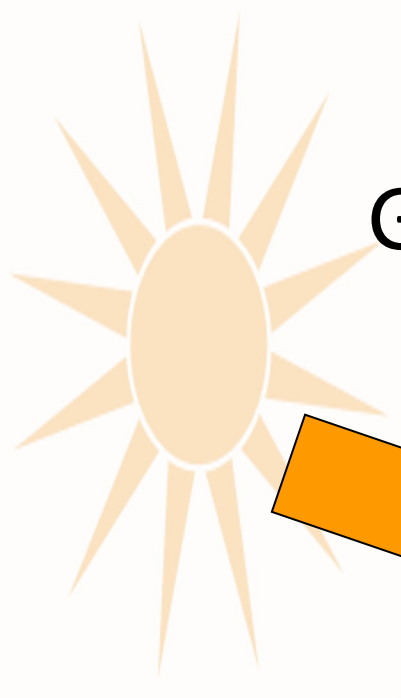
Transport fuels (petrol and diesel) account for almost half of all energy used in South African municipalities.

Solid waste in municipal land fill sites generates methane and other potent greenhouse gases.

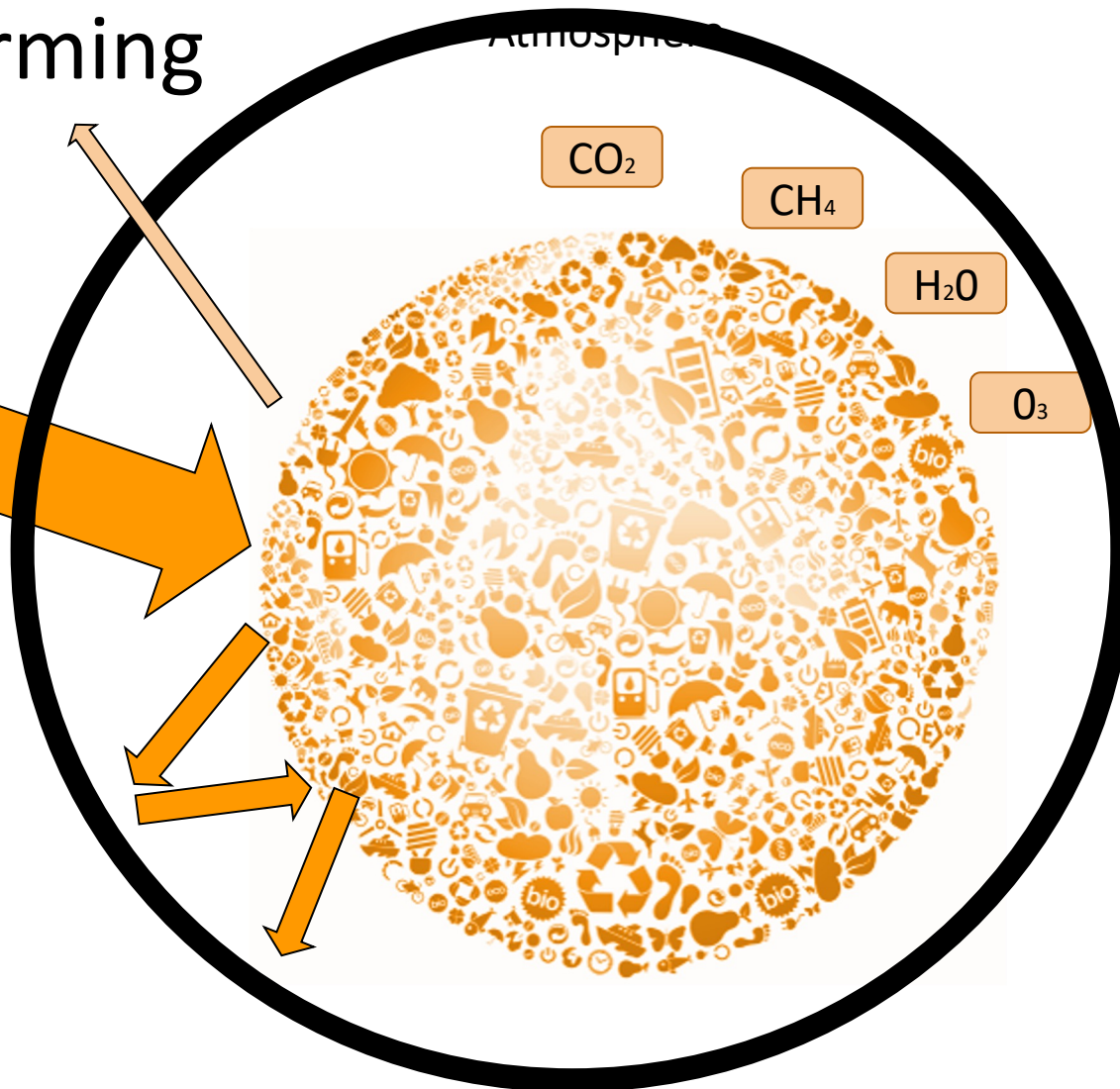
Other commonly used GHG emitting fuels in SA municipalities are paraffin, coal, gas, and heavier industrial fuel oils. Cities with airports and harbours would also use aviation and maritime fuels.



Global Warming

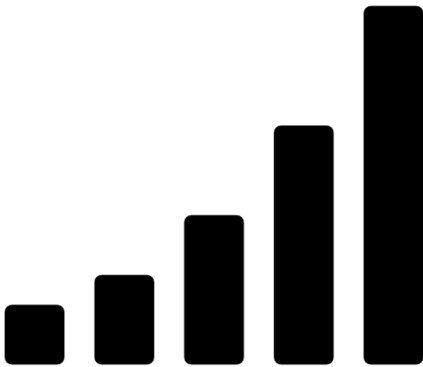


Increase levels of CO₂ and other Greenhouse gases trap more heat in the atmosphere



Direct Impacts of Climate Change

Increased
Temperatures



Variable Rain



Rising Seas



DIRECT IMPACTS OF CLIMATE CHANGE

Increased
Temperatures

Variable Rain

Rising Seas



Lead to a range of Indirect Impacts of Climate Change

Agriculture



**Crop Yields
Fires
Irrigation
Demands**

Biodiversity



**Loss of habitat &
species
Change in
biomes**

Coastal



**Sea level rise
Impacts on
property &
livelihoods**

Health



**Air Pollution
Infectious
Diseases**

Settlements



**Flooding
Infrastructure
impacts**

Water



**Decreased
quality and
quantity of water**

IMPACTS OF CLIMATE CHANGE

Air Pollution & Increasing Allergens

Asthma, cardiovascular disease,
respiratory allergies

Extreme Heat

Heat-related illness and death,
cardiovascular failure

Severe Weather

Injuries, fatalities, loss of homes,
mental health impacts

Environmental Degradation

Forced migration, civil conflict, mental
health impacts, loss of jobs and income

Degraded Living Conditions & Social Inequities

Exacerbation of existing social and health
inequities and vulnerabilities

Changes In Vector Ecology

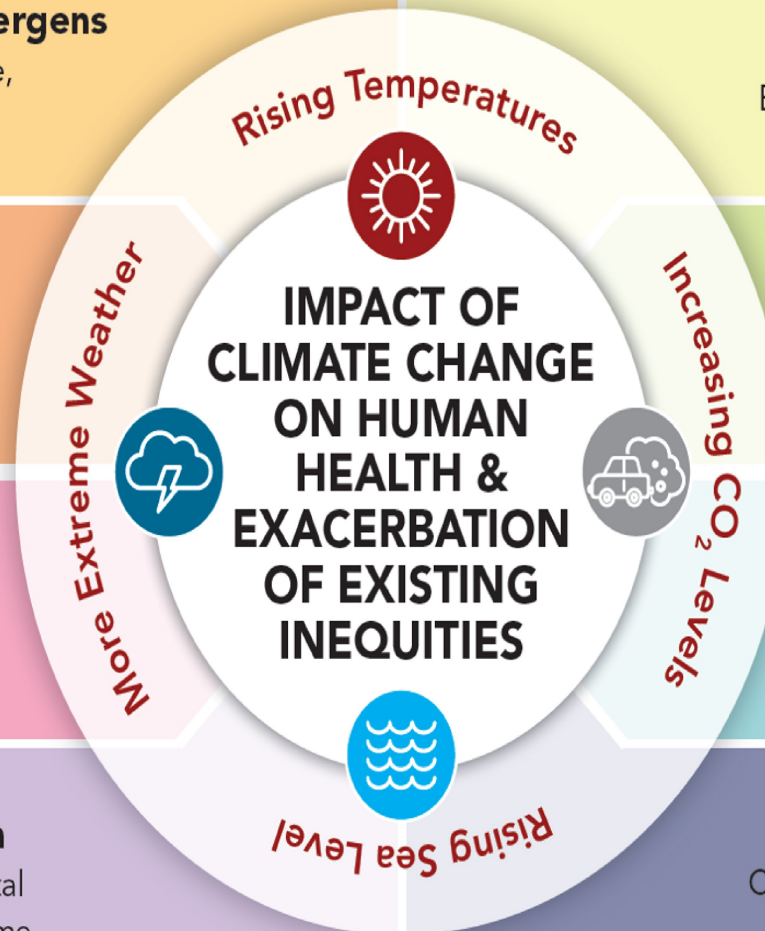
Malaria, dengue, encephalitis,
hantavirus, Rift Valley fever, Lyme
disease, chikungunya, West Nile virus

Water & Food Supply Impacts

Malnutrition, diarrheal disease

Water Quality Impacts

Cholera, cryptosporidiosis, Campylobacter,
leptospirosis, harmful algal blooms



Adapted from CDC, J. Patz

HOW DO WE RESPOND TO CLIMATE CHANGE?

Climate change is the greatest challenges to modern human civilization with large impacts on socioeconomic, environment, mining and development related sectors, including water resources, agriculture and food security, human health, ecosystems and biodiversity.

- **Adaptation** is a response to climate change that seeks to reduce the vulnerability of natural and human systems to climate change effects. Adaptation is a process through which societies make themselves better able to cope with an uncertain future.
- **Mitigation** is any action taken to permanently eliminate or reduce the long-term risk and hazards of climate change to human life, property. It involves complex interactions between climatic, environmental, economic, political, institutional, social, and technological processes.

JUST TRANSITION

- A just transition aims to achieve a quality of life for all South Africans, referring to adapting to the impacts of climate change fostering climate resilience and reaching net - zero carbon emissions by 2050.
 - A just transition puts people at the centre of decision making especially those most impacted, the poor, women, people with disabilities, youth and vulnerable – empowering and equipping them for new opportunities of the future.
 - A just transition for all towards an environmentally sustainable economy. Work needs to be well managed and contribute to the goals of decent work for all, social inclusion and the eradication of poverty.
- ” A framework for a just transition towards environmentally sustainable economies and societies for all”

GREEN ECONOMY



- A green economy is an economy that aims at reducing environmental risks and ecological scarcities, and that aims for sustainable development without degrading the environment.

PROGRAMS TO ADDRESS CLIMATE CHANGE / JUST TRANSITION AND THE GREEN ECONOMY

- Education and Awareness of communities
- Effective management of landfill sites
- Effective management of water resources
- Planting of trees
- Smart agriculture projects
- Incorporate climate change impacts within disaster plans
- Retro - fit government and municipal buildings
- Convert fleet to green energy
- Include it in the IDP
- Renewable energy (EIA)

PROGRAMS TO ADDRESS CLIMATE CHANGE / JUST TRANSITION AND THE GREEN ECONOMY

- Procure from companies utilizing green initiatives.
- Having an effective pest control program
- Monitoring sea level rise.
- Implement early warning systems.
- Recycling
- Monitoring and adapting to changes within the health and diseases profiles.
- Collection of indigenous knowledge.
- Removal of alien invasive.
- Protecting our natural resources in a sustainable way.

SMART AGRICULTURE PROJECT

- The department has prioritised the implementation of smart agriculture projects as this is a core function of the department.
- The current models and scientific information it is predicted that the Northern Cape temperatures will increase by between 5 and 7 in the interior and between 3 to 5 degrees at the coast degrees over the next 50 to 100years.
- Smart Agriculture projects will be aimed at addressing the abovementioned issues as temperature increases will impact on crop production and also increased evaporation of surface water thus reducing the availability water and increasing pressure on ground water.
- The target group will be the youth so that they can be exposed to new more effective ways of crop farming and assist with ensuring food security.





THANK YOU