



# NC PSDF TOOLKIT 7 | CLIMATE-NEUTRALITY AND CLIMATE CHANGE



Province of the Northern Cape  
REPUBLIC OF SOUTH AFRICA

## CLIMATE-NEUTRALITY AND CLIMATE CHANGE TOOLKIT

The Guideline for the Inclusion of Climate-Neutrality into the Northern Cape Climate Change Strategy provides a comprehensive approach to achieving climate neutrality within the province. This toolkit highlights the key elements necessary to identify, prioritize, and implement climate-neutral projects, aiming to significantly reduce carbon emissions and promote sustainable development across the Northern Cape. The guidelines align with international best practices and emphasize the integration of climate-neutral policies into local and regional planning efforts.

### TOOLKIT INTENT

#### **This Toolkit is to be Used to:**

- Establish regulatory frameworks and policies that support climate-neutral initiatives, creating incentives for sustainable practices and ensuring compliance with environmental standards.
- Promote the adoption of renewable energy sources and improve energy efficiency across all sectors to reduce carbon emissions.
- Secure funding for the transition to net-zero emissions by attracting investments, leveraging green bonds, and accessing international climate finance.
- Implement sustainable agricultural practices to reduce the carbon footprint of food production, supporting local food systems and efficient resource use.
- Encourage industries to modernize processes, adopt low-carbon technologies, and improve energy efficiency.
- Develop and retrofit buildings to be energy-efficient and emission-free, promoting green building standards and sustainable materials.
- Foster the use of zero-emission transportation options, such as electric vehicles and public transportation, and build the necessary infrastructure to support them.
- Ensure a fair transition by supporting all communities and workers, providing training, and distributing the benefits of climate action equitably.

- Invest in technologies that facilitate the transition to a climate-neutral economy, such as renewable energy, energy storage, and smart grids.
- Implement methods to remove CO<sub>2</sub> from the atmosphere, including reforestation, soil carbon sequestration, and direct air capture.
- Promote sustainable lifestyle choices among citizens, encouraging energy conservation, waste reduction, and sustainable consumption patterns.

### COPYRIGHT, DATA, AND DATA USE DISCLAIMERS

*The Northern Cape Provincial Spatial Development Framework (PSDF) is the intellectual property of the Northern Cape Office of the Premier, the Department of Agriculture, Land Reform and Rural Development (DALRRD), and the Maswana Group of Companies.*

*While every effort has been made to ensure the accuracy and reliability of the data and information within the TOOLKIT, the Northern Cape Office of the Premier, DALRRD, and the Maswana Group of Companies do not guarantee the completeness or accuracy of the data and information. Users are advised to verify the information independently before making any decisions based on the data or information provided.*

# 1 INTRODUCTION

The Northern Cape Climate Change Strategy will benefit significantly from including a clear and concise climate-neutrality policy. This strategy will help in the identification and prioritization of carbon or climate-neutral projects, guided by the following key elements:

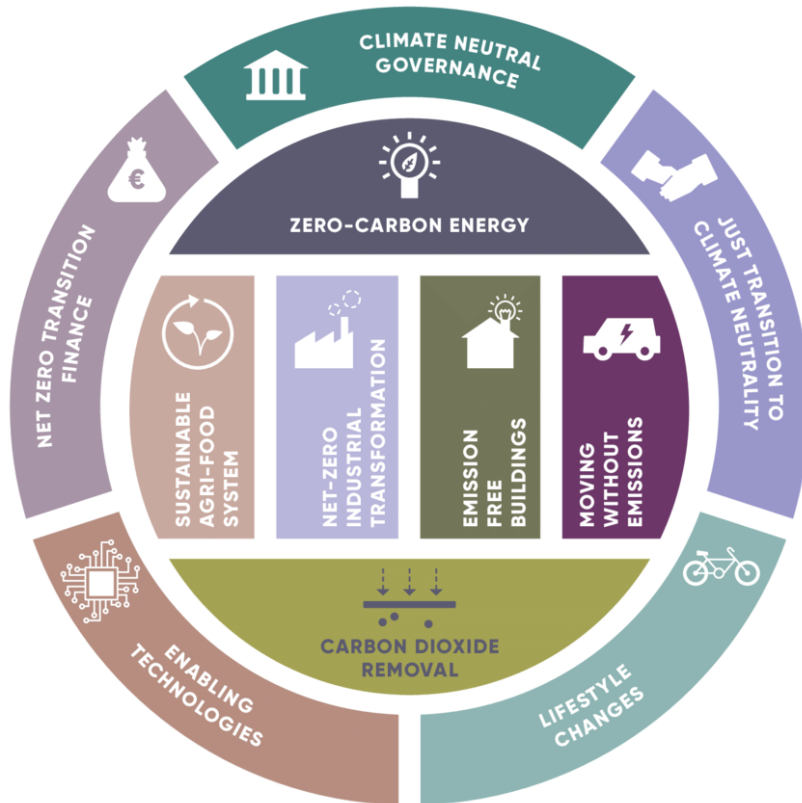


Figure 1: Elements for a climate neutral future (Velten, Haase, Berghmans, Duwe, Evans; 2021).

Source: Velten, Eike & Haase, Isabel & Berghmans, Nicolas & Duwe, Matthias & Evans, Nick. (2021). *Measuring progress towards climate neutrality - Part i: Assessing structural change through net zero indicators*. 10.13140/RG.2.2.35832.98567.

a) **Climate Neutral Governance:** Establish effective policies and regulatory frameworks to support climate-neutral initiatives. This

includes creating incentives for businesses and communities to adopt sustainable practices and ensuring compliance with environmental standards.

- b) **Zero-Carbon Energy:** Promote the adoption of renewable energy sources such as solar, wind, and hydroelectric power to reduce carbon emissions. This involves investing in renewable energy infrastructure and encouraging energy efficiency across all sectors.
- c) **Net-Zero Transition Finance:** Secure funding to support the transition to net-zero carbon emissions. This includes attracting investments from public and private sectors, leveraging green bonds, and accessing international climate finance mechanisms.
- d) **Sustainable Agri-Food System:** Implement sustainable agricultural practices to reduce the carbon footprint of food production. This can be achieved through techniques such as organic farming, agroforestry, and efficient water use, as well as supporting local food systems.
- e) **Net-Zero Industrial Transformation:** Encourage industries to adopt net-zero carbon practices by modernizing manufacturing processes, improving energy efficiency, and transitioning to low-carbon technologies. This also involves fostering innovation and providing support for research and development.
- f) **Emission-Free Buildings:** Develop and retrofit buildings to be energy-efficient and emission-free. This includes promoting green building standards, using sustainable materials, and implementing energy-efficient heating, cooling, and lighting systems.
- g) **Moving Without Emissions:** Foster the use of zero-emission transportation options such as electric vehicles, public transportation, cycling, and walking. This involves building the necessary infrastructure, such as charging stations for electric vehicles and safe bike lanes.
- h) **Just Transition to Climate Neutrality:** Ensure a fair transition that supports all communities and workers. This means providing training and job opportunities in green sectors, supporting



vulnerable populations, and ensuring that the benefits of climate action are equitably distributed.

- i) **Enabling Technologies:** Invest in technologies that facilitate the transition to a climate-neutral economy. This includes advancements in renewable energy, energy storage, smart grids, and digital solutions for monitoring and managing energy use.
- j) **Carbon Dioxide Removal:** Implement methods for removing CO2 from the atmosphere, such as reforestation, soil carbon sequestration, and direct air capture technologies. These methods help to offset emissions that are difficult to eliminate.
- k) **Lifestyle Changes:** Promote sustainable lifestyle choices among citizens. This includes encouraging energy conservation, reducing waste, supporting sustainable consumption patterns, and raising awareness about the impacts of individual actions on the environment.

The climate-neutral policy and climate change strategy overall will benefit from the development of a cross-impact matrix to measure the interactions between development and climate-neutral strategies and projects. The figure below provides an example of measuring the interaction of

policy goals with the sustainable development goals (SDGs), that can also be applied to projects.

Figure 2: Cross-impact matrix with interactions between 21 targets and goals

Source: *SDGs and the environment in the EU: A systems view to improve coherence*, SEI Project Report, p. 15, 2019.

