

CLIMATE CHANGE FACTSHEET: WHAT IS IT AND WHY SHOULD NAMIBIANS CARE?

By Teneal Koorts and Donovan Wagner

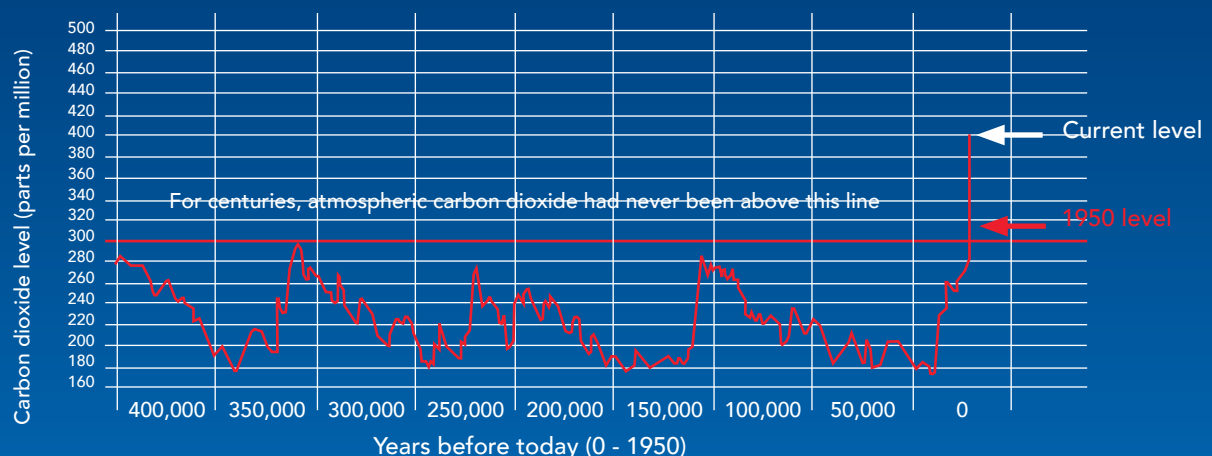
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Since the beginning of time natural factors have caused the climate on earth to change. Volcanic eruptions, plate tectonics and changes in the earth's orbit around the sun have led to slow changes in global temperatures over many centuries. This is referred to as '*climate change*'. However, by burning huge amounts of fossil fuels like oil and gas, humankind has greatly increased carbon dioxide (CO₂) gas emissions since the Industrial Revolution in the 1800s. This has led to a rapid increase in global temperatures over the past 200 years¹. This is called '*global warming*' and is the direct result of harmful human activities such as power generation, manufacturing goods, cutting down forests, producing food, using transportation and much more².



CO₂ and other gases, trap heat from the sun in the earth's atmosphere which gradually warms up. This process is called the '*greenhouse effect*'. Alarmingly, CO₂ levels in the earth's atmosphere are at an all-time high and still on the increase. According to the National Aeronautics and Space Administration (NASA) CO₂ levels have not been this high for at least three million years³.



¹ Met Office. Causes of climate change. <https://www.metoffice.gov.uk/weather/climate-change/causes-of-climate-change>

² European Commission. Causes of climate change. https://ec.europa.eu/clima/climate-change/causes-climate-change_en

³ NASA Climate Change Website. Graphic: Carbon dioxide hits new high.

THE IMPACT OF THE CLIMATE CRISIS ON:

 <p>WEATHER PATTERNS</p>	<p>Changes in earth's climate causes extreme weather events to become more intense and frequent. Heat waves, drought, heavy downpours, flooding and hurricanes, tornadoes and wildfires are all on the increase as global temperatures rise⁴. As seen with drought in Namibia, extreme weather events threaten ecosystems, human and animal life, food production, water supply and land availability.</p>
 <p>FOOD SECURITY</p>	<p>One of the leading causes behind global hunger and the food crisis is climate change. Crops and fruit plants cannot easily adapt to rising temperatures, increased droughts or floods. Insufficient crop production leads to scarcity, rising food prices and increased global hunger. What is already a dire situation is predicted to become even worse as climate variability continues⁵.</p>
 <p>HEALTH</p>	<p>Extreme weather events such as droughts and heat-waves, have a profound impact on human health and lives. It results in an increase in infectious diseases, respiratory disorders, deaths due to heat stress, undernutrition due to food insecurity and much more⁶. For example, floods can compromise water supply and result in diseases, like cholera, harmful to human beings.</p>
 <p>ECONOMY</p>	<p>The climate crisis is viewed as one of the biggest risks to the global economy. The Climate Economic Index shows that if global temperatures continue to rise, 48 countries and 90% of the global economy will be affected. In Namibia up to 30% of the country's GDP is dependent on the environment, such as agriculture, tourism, and fisheries – all of which is directly impacted by climate events such as drought or flooding⁷. During Namibia's seven-year-drought many workers in environmental industries lost their jobs, while farmers lost their livestock and means of income. A detrimental blow to the national economy.</p>
 <p>ANIMALS</p>	<p>Animal health and welfare is also directly and indirectly impacted by the climate crisis. Just like humans – animals also struggle with high temperatures. Problems include temperature-related illness, vector-borne diseases (like lyme disease), food and water shortages⁸.</p>
 <p>NATURE</p>	<p>Increased climate events threaten and degrade ecosystem functions and services. Ocean warming⁹ and acidification threaten the future growth of coral reefs while human activities release damaging pollutants that affect plants and plant productivity¹⁰. Oceans absorb a lot of CO₂ from the atmosphere, this leads to warmer Oceans and a drop in the PH value, making the seawater more acidic. Ocean acidification or acidic ocean water makes it difficult for some animals, like oysters and clams to make and keep their shells. It also weakens coral reefs and stunts growth which is home to many sea animals and essential to ecosystem health¹¹.</p>



⁴ Center for Climate and Energy Solutions. Extreme weather and climate change. <https://www.c2es.org/content/extreme-weather-and-climate-change/>

⁵ Molotoks A, Smith P, Dawson TP. Impacts of land use, population, and climate change on global food security. Food Energy Secur. 2021;10:e261.

⁶ Rocque RJ, Beaudoin C, Ndjaboue R, et al. Health effects of climate change: an overview of systematic reviews. BMJ Open 2021;11:e046333. doi:10.1136/bmjopen-2020-046333

⁷ Swiss Re Institute. The economics of climate change. 2021.

⁸ Department of Agriculture and Forest Sciences. Nicola Lacetera. Impact of climate change on animal health and welfare.

⁹ Cornwall et al. Global declines in coral reef calcium carbonate production under ocean acidification and warming.

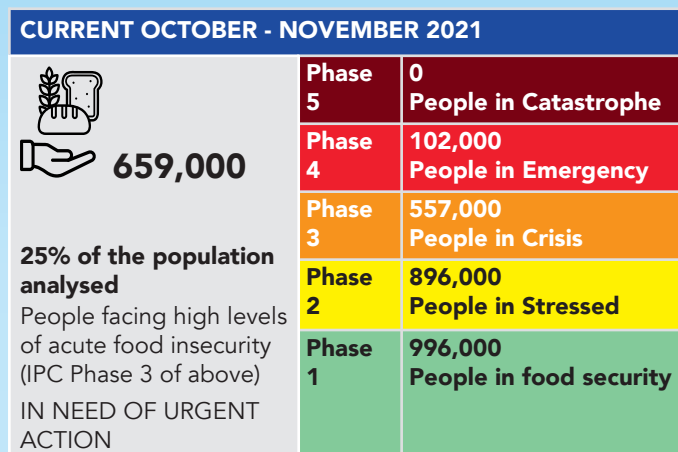
¹⁰ United States Department of Agriculture (USDA) Agricultural Research Service (ARS). The influence of rising tropospheric carbon dioxide and ozone on plant productivity.

¹¹ Climate Kids. What is ocean acidification? <https://climatekids.nasa.gov/acid-ocean/>

HOW IS NAMIBIA AFFECTED BY THE CLIMATE CRISIS?

Namibia, an already dry and arid country, is one of the countries most severely affected by the climate crisis. Scientists predict temperatures in this sunny country to increase more rapidly than the global average. For Namibia, there is already evidence that the environment, inhabitants and activities are already being impacted negatively by temperature rise. Over the past 20 years, Namibia's economy experienced a decrease of 5% due to climate change induced natural disasters¹².

Up to 30% of Namibia's Gross Domestic Product (GDP) is dependent on environmental industries such as agriculture, tourism, and fisheries – all of which are directly impacted by the climate crisis. This was clearly seen after the country faced a seven-year prolonged drought from 2013 to 2019 which left approximately 659,000 Namibians facing high levels of acute food insecurity by the end of 2021¹³.



POLICIES AND THE ENVIRONMENT

In the light of the climate emergency, The Paris Agreement, an ambitious global action plan to fight climate change was set forth in 2015. This global framework and legally binding treaty on climate change was signed by 196 countries and came into force on 4 November 2016.

It aims to limit global warming to below 2°C, preferably 1.5°C by 2100. Above 2°C means more extreme weather events, loss of biodiversity and spread of deadly diseases. The Paris Agreement also sets out to strengthen countries' ability to deal with these impacts and support them in their efforts¹⁴.

Although Namibia is one of the most affected countries by the climate crisis, little concrete action has been undertaken. However, Namibia is one of the participating countries of the Paris Agreement and has a **Climate Change Strategy and Action Plan (NCCSAP)** in place.

The NCCSAP was developed for 2013 to 2020 and sets out activities and measures to be taken to address climate change nationally¹⁵.

It aims to identify potential adaptation and mitigation options to help people live with global warming and to reduce Namibia's CO2 emissions. Although, much remains to be done the NCCSAP was an important step for the country.

In recent years the government and private sector have come together to launch various initiatives to address climate change impacts in the country, as well to honour the Paris Agreement. For example, the development of various solar power plants and the introduction of climate resilient agriculture practices.

¹² Keja-Kaereho C, Tjizu BR. 2019. Climate change and global warming in Namibia: Environmental disasters vs. human life and the economy. Management and Economics Research Journal, Vol. 5, Article ID 836535, 11 pages.

¹³ IPC Acute Food Insecurity Analysis 2021. Drought, Price Shocks and Economic Impacts From Covid-19 Measures Drive Food Insecurity In Namibia

¹⁴ United Nations Climate Change. The Paris Agreement. <https://unfccc.int/process-and-meetings/the-paris-agreement/the-paris-agreement>

¹⁵ Ruppel, O.C./ K. Ruppel-Schlichting (eds). 2022. Environmental Law and Policy in Namibia – Towards making Africa the Tree of Life. Windhoek. Hanns Seidel Foundation Namibia.



KNOW YOUR ENVIRONMENTAL POLICIES:

In recognition of environmental constraints and vulnerability, the **National Policy on Climate Change for Namibia** was launched in 2011. The policy seeks to outline a coherent, transparent and inclusive framework on climate risk management in accordance with Namibia's national development agenda, and the relevant legal framework. The general aim of the Policy is to contribute to the attainment of sustainable development in line with Namibia's Vision 2030 through strengthening of national capacities to reduce climate change risk and build resilience for any climate change shocks¹⁶. This is specified in the following objectives:

- To develop and implement appropriate adaptation strategies and actions that will lower the vulnerability of Namibians and various sectors to the impacts of climate change;
- To develop action and strategies for climate change mitigation;
- To integrate climate change effectively into policies, institutional and development frameworks in recognition of the cross-cutting nature of climate change;
- To enhance capacities and synergies at local, regional and national levels and at individual, institutional and systemic levels to ensure successful implementation of climate change response activities;
- To provide secure and adequate funding resources for effective adaptation and mitigation investments on climate change and associated activities.

ABOUT THE AUTHORS

Teneal Koorts is a freelance communication practitioner with experience in agriculture and environmental journalism, research and social media management. She holds a Bachelor's degree in Communication from the North West University of South Africa. She has vast experience in environmental journalism as a participant of the Young African Journalist Accelerator Programme of the Rosa Luxemburg Foundation and the Environment Reporting Programme by Africa Women in the Media (AWiM).

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¹⁶ Ruppel, O.C./ K. Ruppel-Schlichting (eds). 2022. Environmental Law and Policy in Namibia – Towards making Africa the Tree of Life. Windhoek. Hanns Seidel Foundation Namibia.