

## What is climate change and why does it matter for Namibia?

Climate change, or global warming, refers to the rise in average surface temperatures on earth. Climate change is mainly caused by humans burning fossil fuels such as oil and coal which release carbon dioxide and other greenhouse gases into the air. Carbon dioxide levels have been on the increase since about 1900. While some quantities of these gases are naturally occurring and form part of the earth's temperature control system, the atmospheric concentration of carbon dioxide did not rise above 300 parts per million (ppm) between the start of human civilization roughly 10,000 years ago and 1900. Within the last decade, the concentration of carbon dioxide passed 400 ppm, a level not reached in more than 800,000 years.

Carbon dioxide and other greenhouse gases trap heat within the earth's atmosphere, which can have several effects on the earth's ecosystems, including rising sea levels, severe weather events and droughts. For example, rising sea levels due to the melting of the polar ice caps contribute to greater storm damage. Warming ocean temperatures are associated with stronger and more frequent storms, which contribute to higher rainfall and more frequent flooding that in turn threatens habitats, homes and lives. In addition, an increase in temperatures leads to more heat waves that contribute to the increase in human deaths.

According to the National Aeronautics and Space Administration's Goddard Institute for Space Studies, the average global temperature on earth has increased by approximately 1 degree Celsius since 1880. Two-thirds of the warming has occurred since 1975, at a rate of roughly 0.15-0.20 degree Celsius per decade. The conclusion that can be drawn from this is that there is a connection between the rise of carbon dioxide and the increase in the burning fossil fuels, causing global temperatures to rise and producing more unpredictable and devastating global weather patterns.

Namibia is not immune from the effects of climate change. Namibia is one of the driest countries in sub-Saharan Africa and is highly dependent on natural resource-based primary production sectors such as agriculture. It is estimated that over half of Namibia's population depends on subsistence agriculture. The impact of climate change in Namibia is likely to cause

changes in the distribution pattern and seasonality of rain and increase the severity and frequency of extreme weather events such as droughts and floods.

Namibia is therefore potentially one of the most vulnerable countries to climate change, and as with other African countries, likely to be severely affected by climate change because it has fewer resources and less capacity to adapt to its impacts. Evidence from other low-income countries suggests that the effects of climate change will hit the poor hardest, reducing employment opportunities and wages, especially for unskilled labour. Ironically, the poorest nations of the world have contributed the least to the problem of global warming.

Namibia adopted a National Climate Change Policy in 2011. This policy acknowledges Namibia's many legal and policy instruments, such as the Namibian Constitution, the various National Development Plans, the National Land Policy, the National Drought Policy and Strategy, the Agriculture Policy and the Poverty Reduction Strategy and Action Plan of Namibia. However, most of these sector-specific policies were developed without due consideration of climate change because climate change was not regarded as a pressing issue when these policies were developed.

Namibia's National Climate Change Policy therefore aims to integrate climate change policy into existing policies and to enhance synergies between the various sectors. In addition, the policy encourages climate change activities to take place in line with internationally-accepted scientific findings. In fact, the policy makes it clear that the support of international agencies for building human and institutional capacity for climate change interventions is crucial to Namibia's efforts to mitigate climate change. Namibia's commitment to international cooperation on dealing with climate change is reflected in the fact that President Geingob signed the Paris Climate Agreement in 2016 on behalf of the Namibian nation.

The Paris Climate Agreement is an initiative under the United Nations Framework Convention on Climate Change aimed at reducing global warming. The Agreement was adopted by nearly every nation in 2015. It aims to reduce global greenhouse gas emissions in an effort to limit the global temperature increases in this century to 2 degrees Celsius, while pursuing ways to limit the increase to a more ambitious 1.5 degrees Celsius. The Agreement includes commitments from all major greenhouse gas emitting countries, including the United States, China, India, Japan and the members of the European Union. The Agreement also provides a roadmap for developed nations to assist developing nations in their climate mitigation and adaptation efforts, and creates a framework for the transparent monitoring, reporting and enhancement of member countries' climate goals.

Unfortunately, the implementation of the Agreement has been covered under a cloud of uncertainty since 2017 when President Trump announced his administration's intentions to withdraw the United States from the Agreement. The United States' withdrawal came into effect on 4 November 2020. However, Joe Biden, who at the time of writing seems set to replace President Trump, has stated that under his presidency, the United States will re-join the Paris Climate Agreement. The Trump administration's actions are in contrast with the Obama administration's 2015 commitment to ensure that the United States is cutting its greenhouse gas emissions by up to 28 percent by the year 2025.

The Trump administration's main argument for withdrawing from the Agreement is that it is unfair to the United States and that it would have a devastating effect on the United States economy – in contrast to Biden's view that a "green economy" can create employment.

In addition, while there is general consensus among most scientists, scientific organizations and governments that climate change is caused by human activity, the Trump administration has questioned the validity of this view. Climate change deniers often claim that the recent changes attributed to human activity are actually part of the natural variations in the earth's climate and temperature. However, decades of data and analysis support the reality of climate change and the human factor in this process.

Furthermore, more and more economists seem to agree that acting to reduce fossil fuel emissions would be far less expensive than dealing with the consequences of not doing so.

Many scientists state that the effect of climate change could be reversed, but this will not happen overnight and it will take a determined effort from everyone on earth to make this happen before it is too late. After all, there is no Planet B that we can live on - the earth remains the only planet we have.

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