Climate change is a pressing global issue, and Lusaka Province in Zambia is no exception. Rising temperatures, changing rainfall patterns, and increased frequency of extreme weather events are some of the impacts of climate change in the region.¹

Temperature and Rainfall Patterns

Studies have shown that Zambia, including Lusaka Province, is experiencing rising temperatures, with an increase of up to 2°C predicted by 2050.² This warming trend is expected to continue, with severe consequences for agriculture, human health, and ecosystems. Rainfall patterns are also changing, with a decline in rainfall predicted in the southern and western regions of Zambia, including Lusaka Province.

Impacts on Agriculture

Agriculture is a vital sector in Zambia's economy, and climate change is posing significant challenges to farmers in Lusaka Province. Changing rainfall patterns, increased temperatures, and increased frequency of extreme weather events are affecting crop yields, livestock productivity, and food security. Smallholder farmers, who are the backbone of Zambia's agriculture sector, are particularly vulnerable to climate-related shocks.

Flooding and Drainage

Lusaka Province is also experiencing increased flooding, particularly during the rainy season. This is due to a combination of factors, including heavy rainfall, poor drainage systems, and urbanization.³ Flooding has significant impacts on human health, infrastructure, and the economy. In response, the government and other stakeholders are working to improve drainage systems and enhance flood resilience in the province.

Climate Change Adaptation and Mitigation

To address the impacts of climate change, the Zambian government, with support from international partners, is implementing various adaptation and mitigation measures. These include promoting conservation agriculture, enhancing early warning systems, and supporting climate-resilient infrastructure development. Additionally, efforts are being made to promote renewable energy, energy efficiency, and sustainable land use practices.

Research and Policy Gaps

Despite these efforts, there are still significant research and policy gaps that need to be addressed. Further research is needed to better understand the impacts of climate change on different sectors, including agriculture, health, and infrastructure. Additionally, there is a need for more effective policy and institutional frameworks to support climate change adaptation and mitigation efforts.⁴

Conclusion

Climate change is a significant threat to sustainable development in Lusaka Province, Zambia. Rising temperatures, changing rainfall patterns, and increased frequency of extreme weather events are affecting agriculture, human health, and infrastructure. To address these impacts, it is essential to promote climate-resilient agriculture, enhance early warning systems, and support climate-resilient infrastructure development. Further research and policy support are needed to address the remaining gaps and ensure that Lusaka Province is better equipped to adapt to the challenges of climate change.

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