



NATIONAL GREENHOUSE GAS INVENTORY SYSTEM



GREEN INVESTMENT OPPORTUNITIES FOR MALAWI'S ENERGY SECTOR

Globally, energy sector activities are the greatest source of the greenhouse gas emissions (49%) driving climate change. These emissions come from burning fuels to heat and light buildings, cook food, and power motor vehicles and airplanes. In Malawi, emissions from this sector are still comparatively low, contributing just 10% of total national greenhouse gas emissions in 2017.

This is largely because of Malawi's low electrification rate, at 10%. While higher in urban settings (25%), only 5% of rural households have access to electricity. Therefore, most Malawians (up to 98%) turn to wood fuels to meet cooking and heating needs.

Wood fuels contribute to energy sector emissions (24%), but if responsibly managed and sourced, wood fuels can be a sustainable and renewable source of energy (see separate Wood Fuels Green Investment Brochure).

In 2017, emissions from the energy sector accounted for 10% of Malawi's total greenhouse gas emissions.

Rather, most of Malawi's energy sector emissions come from non-renewable fossil fuels used to power transportation and supply electricity. Diesel alone contributed nearly 50% of total energy sector emissions.

As demand for transportation increases along with Malawi's growing population, and energy needs compound in Malawi's swelling urban centers, emissions from energy use are expected to rise.

In 2019, the Government of Malawi, through the Ministry of Natural Resources, Energy and Mining, in the Environmental Affairs Department (EAD), launched the **Greenhouse Gas Inventory System** (GHG-IS) to monitor and report national emissions across all economic sectors. This comprehensive system establishes a process through which EAD engages public and private sector partners to collect critical information needed to produce reliable estimates of greenhouse gas emissions in Malawi.

Emissions estimates produced by the GHG-IS can help the government, investors, and development partners produce effective, practical and mutually-beneficial strategies to achieve green growth. Understanding the greatest sources of emissions allows Malawi to make targeted interventions in the energy sector and better access climate finance.

Through the improved data collection and management processes, the GHG-IS generates more complete information about energy sector emissions in Malawi. This can help identify and recognize actors already implementing practices that enhance sustainability and lower emissions in the sector. Those in need of assistance can also be targeted and supported.

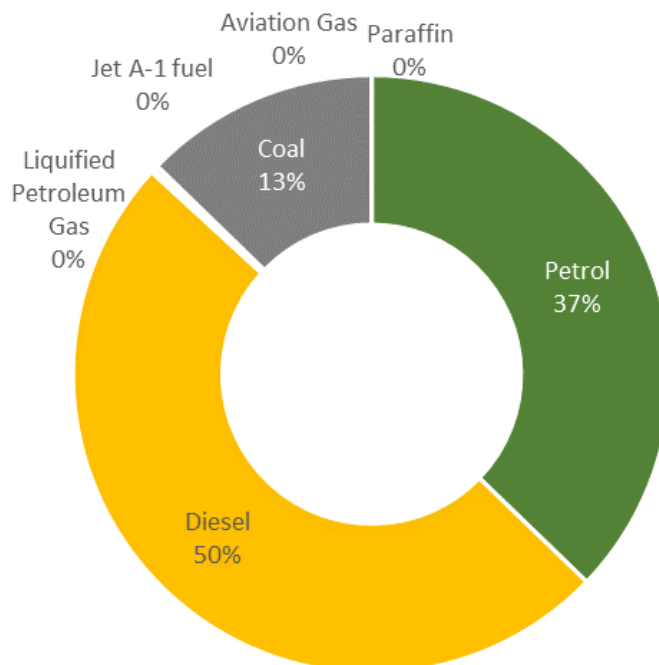
ENERGY AND GREENHOUSE GAS EMISSIONS

Fossil fuels are the primary source of emissions from the energy sector in Malawi and around the world. Through the process of burning fossil fuels to produce energy to power transportation, generators and power plants, fossil fuels release greenhouse gases in the form of carbon dioxide (CO₂).

As the global community considers strategies to lower emissions while powering growing economies, renewable, low-emission energy sources have become a key focus.

ENERGY SECTOR OPPORTUNITIES FOR GREEN GROWTH

Understanding sources of emissions in the Malawian context presents many opportunities to lower the climate impact of energy use.



2017 National Greenhouse Gas Inventory relative contribution of emissions by different fossil fuel categories.

Beneficial actions could include:

- Promoting effective and efficient alternative cooking and heating fuels including electricity, liquified petroleum gas, briquettes, pellets and biogas
- Introducing policies that promote technologies that lower emissions from transportation, including hybrid vehicles and other low-emission vehicles
- Establishing an effective and efficient public transportation system
- Expanding electrification and associated infrastructure to deliver power generated through renewable, low carbon sources such as hydropower, solar and wind power.

SOURCES

- <https://www.epa.gov/ghgemissions/global-greenhouse-gas-emissions-data#Sector>
- <https://www.energy.gov.mw/index.php>
- https://afr100.org/sites/default/files/Restoration_Malawi_Charcoal-Strategy_lowq.pdf

For more information about the GHG-IS and its uses, contact the EAD representative listed below.

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