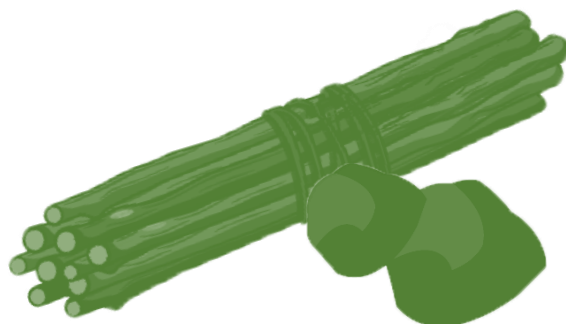




# NATIONAL GREENHOUSE GAS INVENTORY SYSTEM



## GREEN INVESTMENT OPPORTUNITIES FOR MALAWI'S WOOD FUELS

In Malawi, over 96% of Malawi's population depends on wood or charcoal as their primary cooking and heating fuel. Population growth and unmanaged wood fuel extraction has degraded forest resources, resulting in higher fuel prices for consumers, forest cover loss, and significant greenhouse gas emissions that contribute to climate change.

In 2017, the total emissions from wood fuels, both from burning for energy and forest degradation from over-harvesting, contributed 26% of Malawi's total estimated greenhouse gas emissions. In the coming years, these emissions are expected to rise as Malawi's population grows. Between 2019 and 2025, the supply of wood fuels in Malawi is expected to transition from a surplus to a deficit, accelerating further degradation of forest resources. This will result in over 20% of the wood fuel supply being unsustainably sourced by 2021 unless actions are taken.

**In 2017, emissions from wood fuel use and harvesting accounted for 26% of Malawi's total greenhouse gas emissions.**

In 2019, the Government of Malawi, through 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 the EAD engages public and private sector partners to collect critical information needed to produce reliable estimates of greenhouse gas emissions.

Emissions estimates produced by the GHG-IS can help the government, investors, and development partners develop effective, practical and measurable progress toward green growth. Understanding the greatest sources of emissions allows Malawi to make targeted interventions and improve access to climate finance.

Through improved data collection and management processes, the GHG-IS generates more complete information about the supply and demand for wood fuels in Malawi. This information can help identify investment opportunities and recognize practices that enhance sustainability and lower emissions.

### WOOD FUELS AND CLIMATE CHANGE

Wood is a natural resource that can provide a climate-friendly source of energy, if managed sustainably. Yet when wood is excessively harvested, a tree's ability to regrow diminishes and forests are degraded.

In Malawi, 90% of wood fuel emissions from are caused by forest degradation associated with unsustainable harvesting. As seen in the map, forest degradation is concentrated in the Southern and Central Regions of Malawi where densely populated urban areas demand wood fuels and drive degradation.

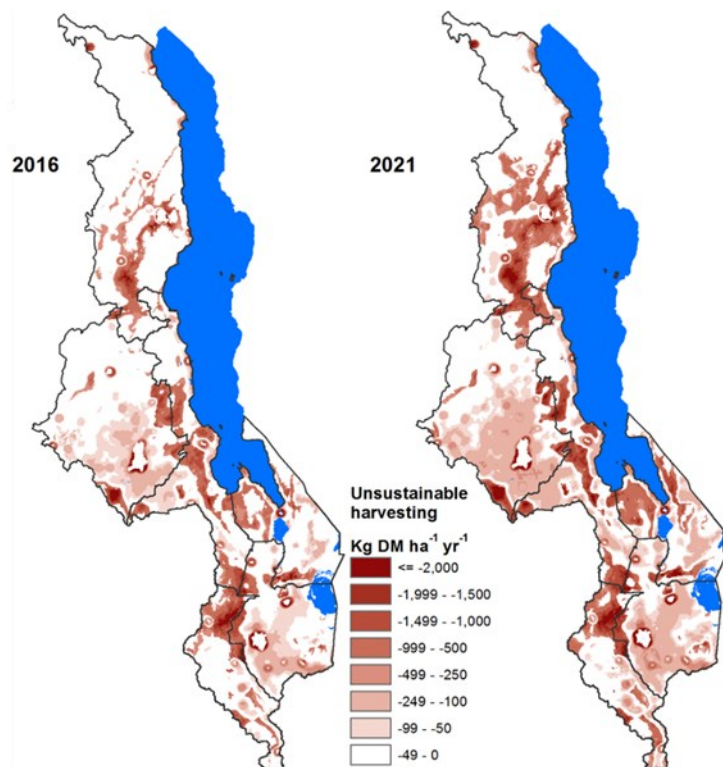
### WOOD FUELS OPPORTUNITIES FOR GREEN GROWTH

Understanding sources of emissions in the Malawian context presents many opportunities to lower the climate impact of wood fuel use and harvesting. Programs that increase the supply of wood or increase efficiency of wood fuel use also offer important co-benefits such as improved health outcomes from cleaner cookstoves, forest landscape restoration and soil conservation.

Where facilitated through extension services, other technical support, or economic incentives, activities that lower emissions from wood fuels can also support national GHG accounting efforts by establishing improved data sharing channels about wood fuel supply and demand.

#### Beneficial actions could include:

- Promoting the adoption of fuel-efficient firewood and charcoal cookstoves to reduce the demand for wood fuels, improve indoor air quality, and lower the burden of collecting or purchasing wood fuel.
- Increasing yields of existing wood fuel plantations through improved management to increase wood fuel supply.
- Expanding woodlots and plantations to increase the supply of wood fuel in Malawi, especially near urban areas where charcoal and firewood supply cannot meet demand.
- Introducing trees on existing crop lands through agroforestry systems to provide for household cooking fuel needs.
- Producing charcoal in improved efficiency kilns to reduce wood fuel waste and meet urban charcoal demand.
- Transitioning urban households to alternative cooking fuels such as electricity, liquefied petroleum gas or biogas.



### WOOD FUEL DEFICIT AREAS IN 2016 AND PROJECTED DEFICIT AREAS IN 2021



### SOURCES

- National Statistics Office. Malawi Fourth Integrated Household Survey, 2016-2017
- Drigo et al. 2019. WISDOM analysis of Wood fuel Demand, Supply, and Harvesting Sustainability for Malawi. Produced for USAID through the USAID/Malawi-funded PERFORM Project

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

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