

## ABOUT MALAWI

*“There is a great deal of hardship in Malawi, but I also see great opportunity, resilience, and joy—even in the face of extreme poverty.”*

Malawi is a tiny landlocked nation situated between Zambia, Tanzania and Mozambique in central sub-Saharan Africa. One of the most densely populated countries on the continent, it is home to over 19 million people whose primary vocation is subsistence agriculture. Having endured years of colonial rule, Malawi has enjoyed a relatively stable government since achieving independence from the United Kingdom in 1964. The capital city, Lilongwe, is second in population only to Blantyre. Malawi is known as the “Warm Heart of Africa” for its people’s generous spirit and warm hospitality. Malawians have a rich and vibrant culture. Their love of music is passed down in song and dance from generation to generation. Visiting westerners never fail to remark on the kindness and resiliency exhibited by Malawians, even in the face of their greatest adversity.



### Energy situation in Malawi

Back in 2008 Malawi relied for 89 % on biomass and in view of the slow economic growth this figure is not expected to differ at lot in 2016. Only about 10 % of the Malawian households is connected to the electricity grid. Thus also in the urban a lot of households are cooking on biomass. The reason for such a low electrification are multiple and not solely income-based. The unreliable grid, the frequency of outages, the affordability and the preference for particular fuels are reported to play a role as well.

Woodfuel demand in Malawi is estimated 13 million tonnes annually. This has been subdivided as follows:

Firewood 65-70 %;

Wood mass used for Charcoal 30-35 %

Rural firewood: 6.8 (all in million Tonnes)

Rural charcoal: 0.6

Urban firewood: 1.8

Urban charcoal: 3.5

In the past few years in the urban the use of charcoal is increasing steadily. It's a much cleaner fuel while its social acceptance will play a role as well. The energy content of charcoal a more than twice the energy content of wood which effects the transport costs and consequently the lower availability of wood in the urban regions.

When using (semi)industrial production methods the efficiency of the charcoal production can be increased by about a factor of 2 to 3. This opens also the possibility of converting all types of biomass (sawdust, bagasse etc.) into charcoal. Combined with efficient stoves a saving of 80 % biomass can be accomplished.

Giel de Pooter, August 2018