

Do you know all the benefits that gasification can provide to communities in remote areas?

WHAT

Open fire is not efficient and produces lots of smoke which causes health problems and releases air pollutants and GHGs

Wood harvesting is time-consuming and exposes women and children to risks.

Traditional use of wood fuel leads to deforestation and land degradation through the cutting down of trees.

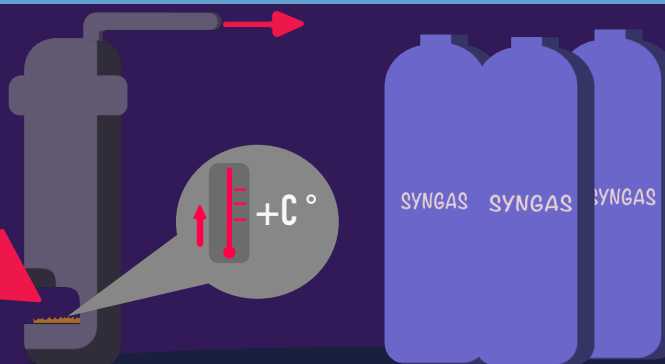
To this day, 2.8 billion people (38 percent of global population) still rely on traditional biomass for cooking and heating. In Africa, this figure rises to 80% of the population. Gasification can represent an alternative to traditional use of wood fuel.

HOW

Forestry and agricultural waste and residues are valuable feedstocks for gasification.

ATTENTION!

Locally available feedstock is needed for gasification to be viable and sustainable. It should be dry and of a homogeneous size.



Gasification is a thermochemical process that occurs at high temperature and with limited oxygen, to convert biomass into synthesis gas (syngas) and biochar.

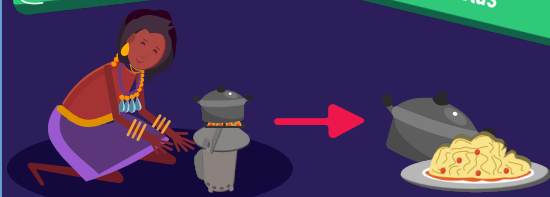
WHY

Heat and power for remote areas



Highly efficient cooking system

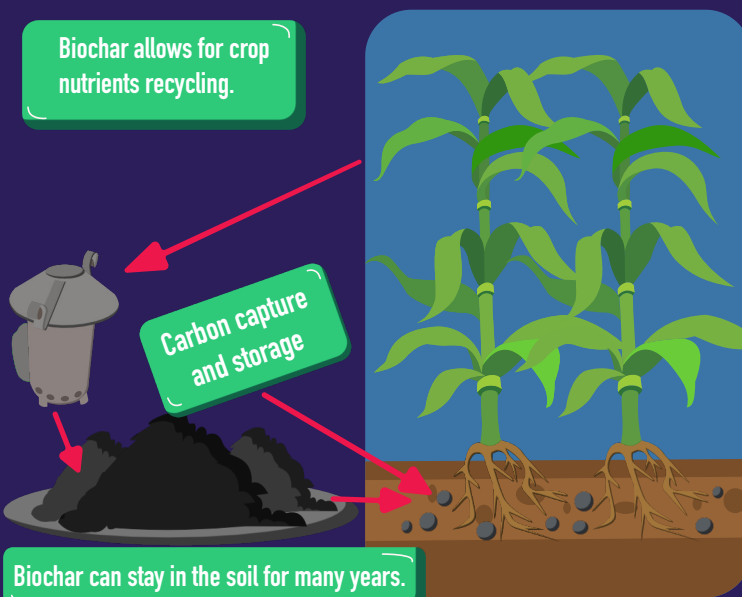
Affordable clean energy for households



At an industrial scale, syngas can be used to electrify remote rural areas or distributed through the national grid, whilst at household scale it can be used for cooking.

Biochar allows for crop nutrients recycling.

Carbon capture and storage



Biochar is a C-rich by-product that can work as soil amendment to enhance soil quality and crop yield while mitigating climate change through C capture and storage.

GASIFICATION EXPLAINED