
POWER FOR ALL FACT SHEET

Renewable Energy Sparks Africa's Sustainable Agrarian Transformation



59%

IN AFRICA, THE AGRI-FOOD SYSTEM EMISSIONS ACCOUNT FOR 59% OF GLOBAL GREENHOUSE GAS EMISSIONS

38%

ABOUT 38% OF THE ENERGY CONSUMED BY THE AGRI-FOOD SYSTEM IS WASTED THROUGH FOOD LOSSES ALONG THE VALUE CHAIN

13%

BY 2050, AFRICA WILL ONLY BE MEETING 13% OF ITS FOOD NEEDS

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Distributed Renewable Energy (DRE) can help transform Africa's agricultural sector into a low-emission, climate-resilient system. This modernization would help mitigate climate change, enhance food security and livelihoods, and reduce income inequalities. Adopt DRE to empower Africa's agricultural sector.

Challenges facing sub-Saharan Africa's agriculture sector: low productivity, climate change, high emissions and energy waste.

- » Sub-Saharan Africa (SSA): Shockingly low agriculture productivity at 28 percent of non-agricultural activities¹.
- » Climate change: Can cause 50 percent reduction in agricultural productivity.
- » African food requirements: Meager 13 percent food needs met by 2050, creating a 16 percent drop in GDP due to malnutrition².
- » Energy waste: Almost 38 percent of energy wasted through food losses across the value chain, contributing to climate change by wasted resources and methane gas from rotting food³.
- » Agri-food emissions: In 2019, global emissions accounted for 31 percent of total GHG emissions. In Africa currently accounts for 59 percent, with a significant land-use change compared to farm-to-gate and pre- and post-production⁴.

DRE can enhance Africa's food self-sufficiency and resilience by increasing productivity, improving market access, and reducing post-harvest losses and emissions.

- » International Renewable Energy Agency (IRENA): Suggests 50 percent of Africa's electricity can come from renewables by 2030 (solar irrigation, biogas, efficient stoves)⁵.
- » Research indicates DRE boosts crop yields, conserves water, improves soil health, and strengthens climate resilience.
- » Solar irrigation: Could result in 42 percent income increase, less groundwater use, higher productivity⁶.
- » Solar cold storage & transport: Reduced post-harvest losses, better food access.
- » Off-grid energy access: Creates new markets, local entrepreneurship, economic opportunities⁷.

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By the Numbers:

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Adopting DRE solutions in Africa's agriculture sector has the potential to improve the livelihoods of smallholder farmers and rural communities. By doing so, poverty levels can be reduced while promoting regional sustainable development.

- » DRE: Shield food security from energy shocks, enhancing smallholder livelihoods.
- » Millions stand to gain energy access from DRE, improving quality of life, health, education, income opportunities, and reducing energy poverty.^{8,9}
- » Fossil fuel alternative: Increased energy security, reduced costs and improved profitability for farmers.¹⁰
- » Solar PV modernizes grid: Enhanced flexibility, reliability, efficiency, fewer outages and costs.¹¹

Share the Message

- » Tweetable message 1: "Transform Africa's Agriculture! Discover how DRE solutions ignite a low-emission, climate-resilient food revolution, skyrocketing productivity in our latest fact sheet! #DREsolutions #Power4All2025 #RenewableEnergy #EmpowerAfrica #GreenAgriculture
- » Tweetable message 2: Africa's agriculture: 59% of total GHG emissions. Cut this drastically by adopting #DRE solutions, replacing fossil fuels to improve efficiency, output and profit! Cleaner, greener future starts here! #EmissionsReduction #CleanEnergy" #Power4All2025 #ClimateAction
- » Tweetable message 3: Supercharge agriculture with solar-powered irrigation! Experience 42% income growth, enhanced productivity, and reduced groundwater use. Embrace #DRE solutions to build a resilient, climate-proof African agriculture! #SolarPower #ClimateResilience" #Power4All2025 #SustainableAgriculture

Sources:

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10. <https://www.weforum.org/agenda/2018/01/how-africa-can-feed-the-world/>
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