

Case Study: Darfur Low Smoke Stoves Project, Sudan

This project helps to improve livelihoods in the Darfur region of Sudan - an area going through what one expert has called "the world's first climate change war".

Carbon Clear is providing carbon finance and management advice for the project. Carbon Clear is making a direct investment in this project; we are not purchasing carbon credits from other organizations.

The Low Smoke Stoves project reduces greenhouse gas emissions by facilitating the switch to a more efficient and cleaner-burning fuel in low income communities. The project is working in El Fasher town to improve poor families' access to modern sources of energy for cooking. This initiative replicates and scales up a successful pilot project that was funded by the UK Department for International Development and other donors.



The project objectives are to:

- Reduce greenhouse gas emissions associated with burning non-renewable biomass in a resource-deprived region.
- Improve the livelihoods of poor families and address energy poverty by switching to a clean energy source, LPG, for cooking purposes.
- Reduce indoor air pollution from burning firewood and charcoal, thereby improving the health and quality of life for women and of children below age five.
- Contribute to environmental conservation by reducing pressure on dwindling forest resources in Northern Darfur

LPG can help the shift towards a low-carbon economy because the fuel features significantly lower greenhouse gas emissions (CO_2 , N_2O and CH_4) than other commercially available fossil fuels such as coal and kerosene, or biomass fuels like dung, firewood, and charcoal.

This project helps to improve local health by reducing indoor air pollution. Biomass solid fuels such as wood, crop residues, and dung release large amounts of particulates, carbon monoxide and other pollutants when burned in simple inefficient traditional stoves. According to the World Health Organisation, prolonged exposure to biomass smoke is a major health risk, contributing to acute respiratory infections in children and other ailments.

The growing scarcity of biomass fuel (firewood and charcoal) in North Darfur increases the energy poverty faced by poor women and their families, and exacerbates the problems caused by local conflicts. The switch to modern fuels helps to improve living conditions and reduces the environmental impact of unsustainable wood harvesting practices.