



USAID/Zambia ECONOMIC DEVELOPMENT ALTERNATIVES TO CHARCOAL (A2C)

The USAID Alternatives to Charcoal (A2C) project works to reduce deforestation related to the production of charcoal. The project takes a market-driven approach to this challenge by catalyzing a shift in household cooking away from charcoal towards private sector-led, low emissions technologies and fuels.

In partnership with several line ministries of the Government of the Republic of Zambia, USAID A2C affects this behavior change by reducing market barriers to scale up clean cooking, strengthening the business enabling environment, and leveraging investments in alternative fuels and technologies (AFTs) to protect Zambia's precious forest resources.

The household energy sector in urban Zambia is dominated by charcoal, with over 75 percent of peri-urban and urban households using charcoal as their primary cooking fuel source, regardless of income. Charcoal is accessible, affordable, and the culturally preferred cooking fuel of choice. Unfortunately, the demand for charcoal is rising exponentially, propelling an increase of charcoal production in rural areas and over-exploitation of Zambia's highly biodiverse Miombo Woodlands.

- **Life of Project:** January 2021 - January 2026
- **Geographic Focus:** National
- **Implementing Partner:** Tetra Tech ARD
- **Chief of Party:** Dr. Catherine Picard
- **Total USAID Funding:** \$24.9 million
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Zambia has one of the highest deforestation rates in the world, losing approximately 250,000 hectares each year. Nearly 25 percent of deforestation and forest degradation is attributed to charcoal production. Charcoal use also contributes significantly to greenhouse gas emissions that drive global climate change. Regrettably, widespread adoption of ATFs is currently hindered by poor enabling conditions, value chain inefficiencies, and cultural barriers. The USAID A2C project addresses these and other challenges to reduce urban demand for charcoal and to protect Zambia's forests and natural resources for generations to come.

Other replacements to charcoal supported by A2C include stoves powered by electricity, liquefied petroleum gas, bio-ethanol liquid gel, processed biomass (i.e., pellets), and biogas. A range of innovative technologies are also available to increase the efficiency, affordability, and accessibility of these alternative fuels. The USAID A2C project takes a market-driven approach to reduce charcoal energy consumption while working in close partnership with the Zambian government to strengthen the ability of private sector partners to increase the availability and adoption of low-emissions technologies and fuels.

While supporting alternative livelihoods for former charcoal-producing households, the project works with the Zambian government, private sector, civil society, and communities to raise awareness and stimulate behavior change to advance consumer adoption of alternatives to charcoal and strengthen enforcement and monitoring of charcoal regulatory frameworks. The USAID A2C project is guided by an understanding of the Zambian government's role in regulating this industry, the importance of supporting private sector-led solutions, and a commitment to engaging youth and empowering women.

Expected Results

The USAID Alternatives to Charcoal project seeks to reduce deforestation through the increased adoption and use of alternative technologies and fuels (ATFs) and decreased consumer demand for charcoal. The A2C project expects to help reduce charcoal energy consumption by 25 percent across Zambia by expanding the use of private sector led ATFs to 83,700 Zambian households. Overall, the project expects to reduce deforestation directly attributable to charcoal production by 6.7 percent.

Achievement highlights to date:

- Increased awareness on clean cooking technologies and fuels for close to 3 million Zambians through communications and behavioral change campaigns focused on the affordability, accessibility, and acceptability of different types of alternative technologies and fuels to charcoal.
- Engaged over 500 religious leaders and supported over 120 urban community influencers to promote clean cooking through 'live greener' cooking demonstrations, door-to-door information sharing, and community theater events.
- Supported the Zambian government by helping establish a national Charcoal Taskforce and training over 150 officers in conservation law enforcement.
- Supported the Ministry of Energy to re-establish the Energy Sector Advisory Group to enhance coordination across Zambia's energy sector by bringing together key stakeholders to advise the Zambian government on broader policy issues related to electricity, petroleum, renewable energy, and clean cooking.