



CLEAN
COOKING
ALLIANCE

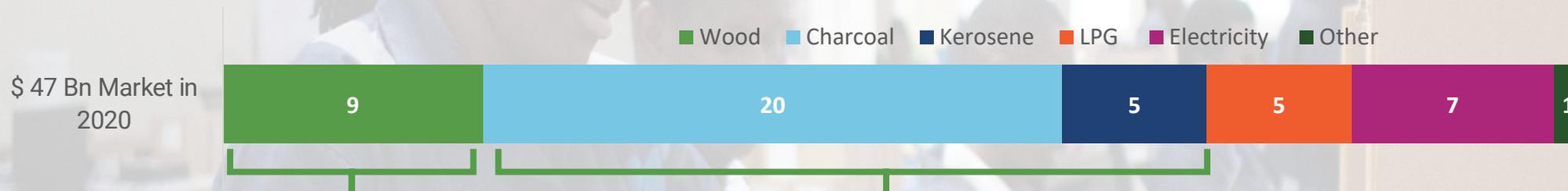
Building a Clean Cooking Industry: Market trends and Opportunities

DEVCO Environment and Climate Week

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1. Clean cooking industry is a multi-billion dollar opportunity to serve 3 billion people in developing markets.

In Sub-Saharan Africa for example, \$34 billion is spent on wood, charcoal and kerosene, while only \$13 Billion is spent on clean cooking fuels



Firewood users:
Mostly rural, some peri-urban and urban



Charcoal and kerosene users:
Urban and rural

The problem is not a lack of consumer expenditure, it is the need for business models and technologies that make superior alternatives both affordable and accessible



2. Over the last decade, the industry is transitioning from aid-based to becoming commercially viable.

1. R&D has led to better products

Biomass gasifier and natural draft stoves such as clean as LPG – Mimi Moto

Biogas systems that are portable, durable and comes with after-sales service and consumer financing – Sistema.bio

2. Tech integrated business models have addressed 3As: affordability, amount and availability

PAYG LPG systems - KopaGas

Last mile distribution through fuel ATMs - KOKO Networks

3. Industrial manufacturing has allowed for economies of scale and enhanced quality control

Biomass stoves manufacturers - BURN, Greenway, SSM



3. Selected business models and technologies are poised to scale up and meet the increasing market opportunity.



Biogas System Companies



Stove Manufacturers



Distribution & Financing Companies



LPG Distributors



Biofuel + Stove Distributors

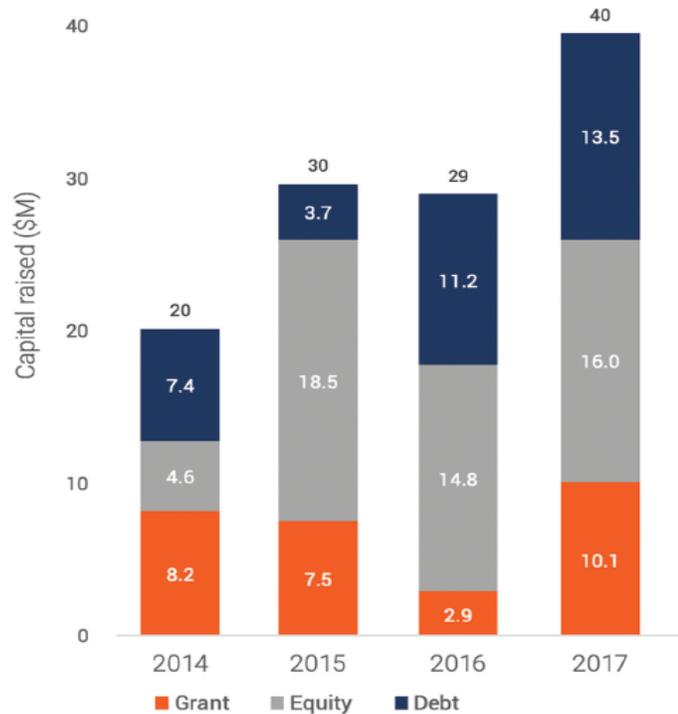


Biomass Fuel Producers



4. Access to finance remains a key constraint to growth – but on a positive trajectory and accelerating as technologies and business models are proven.

Figure II: Capital raised by instrument type in selected clean cooking companies



Source: Clean Cooking Alliance based on self-reported data by companies (2014–17).

- Illustrative recent transactions include:
 - Circle Gas \$25 million
 - KOKO Networks \$20+ million
 - Sistema.bio \$12 million

5. Catalytic capital is needed to accelerate the growth of the sector

There are several current and upcoming sector interventions that have potential to accelerate the sector and increase consumer adoption. Some key interventions are:

Debt, Equity, Mezzanine Capital

SPARK+ Africa Fund

Commercial investors, DFIs, impact investors, non-grant donor capital

Debt and quasi-capital to companies

BIX Fund

FMO, Calvert, Anthos, IFC

Debt to companies with carbon offtake as security

Results-Based Facilities

ESMAP RBF Facility

Multi-country climate+ RBF

ESMAP Donors

WB CiDev Carbon Facility

Multi-country carbon-based RBF

DfID, UK BEIS, Sweden, Swiss Climate Cent Foundation

RVO SDG 7 Facility

Africa-focused RBF facility

DGIS

Grants & TA

CCA's Cooking Industry Catalyst

TA, grants for investment readiness

DGIS, Shell, Osprey, DFID, others

EnDev

BDS to small-scale companies

DGIS, BMZ, others

MECS

Grants for electric/LPG innovation

DGIS

Thank you



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Appendix: Clean Cooking Sector Investment and TA Interventions: Current and In Development

Investment: Debt, Equity, Mezzanine Capital

SPARK+ Africa Fund

Debt and quasi-equity for the entire ecosystem including product companies, vertically integrated fuel players, and distribution/financing co's (off-grid solar and MFIs)

Commercial investors: pension funds, insurance companies, family offices, DFIs

Senior Debt Tranche

Impact Investors: DFIs/impact investors

Equity Tranche

Concessional capital: impact investors, non-grant donor facilities

First Loss Tranche

BIX Fund

Debt for companies with fixed offtake of carbon, other RBF contracts

FMO, Calvert, Anthos, IFC

Various tranches

EnDev RBF Country Programs

Country programs providing grants based on unit sales

DGIS, BMZ, others

Grants: Results-Based Grants

ESMAP RBF Facility

Multi-country climate, health, gender RBF facility

ESMAP Donors

WB CiDev Carbon Facility

Multi-country carbon-based RBF facility

DfID, UK BEIS, Sweden, Swiss Climate Cent Foundation

RVO SDG 7 Facility

Africa-focused RBF facility

DGIS

AECF, EEP, other energy challenge funds

Grants for pilots in specific countries

Various Bilateral Donors

Dev. NGOs (SNV, Practical Action, etc.)

Advocacy and BDS on small-scale solutions

Foundations, Bilateral Donors

Get.Invest Finance Catalyst

TA for renewable energy projects

EC, DGIS, BMZ

Grants: Pilot/R&D grants; TA for investment readiness/transaction advisory; BDS

Alliance Spark+ TA Facility

TA, grants to innovative, investible pioneers in SSA; investment mobilization

In the past, Shell & bilateral/foundation donors; now scale-up funds from DGIS

EnDev

BDS to small co's producing biomass stoves, biogas systems, briquettes

DGIS, BMZ, others

MECS

Grants for electric/LPG innovation

DfID

Power Africa

Grants/TA for electric/LPG

USAID

Global LPG Partnership

Advocacy and TA/grants for LPG projects

Various Bilateral Donors



Appendix: The Alliance's Cooking Industry Catalyst



VENTURE CATALYST

Advisory Support (Internal TA)
Advisory Support (3rd party contract)
Grant Funding

for:

Investment Readiness
Operational Growth
Product/Service R&D
Other



MARKET CATALYST

Ecosystem Building / Advisory

Market Research / Data

Databases / Tools

Convenings / Events

Other Market Interventions



DEMAND CATALYST

Direct to Consumer
Awareness Campaigns

Organizational Partnerships to
Highlight Benefits of Clean Cooking



Appendix: The Alliance's Africa-focused investment fund

LIABILITIES		Ecosystem Sectors	ASSETS
<p>Senior Debt <i>(Coupon + Upside)</i> Amount: \$20 million Coupon: L + 300 bps IRR: 8.6%</p>	<p>FUND TERMS</p>		<p>Debt</p>
<p>Equity <i>(Coupon + Upside)</i> Amount: \$15 million Coupon: L + 50 bps IRR: 6.7%</p>	<p>Fund Size: \$50-70 million</p>	<p>60% DISTRIBUTION and FINANCING INTERMEDIARIES Distributing Clean Cooking Products</p>	<p>Quasi Equity <i>(and limited Equity investments, where appropriate)</i></p>
<p>Concessional Equity/First Loss <i>(No Coupon/Capped Return)</i> Amount: \$15 million IRR: 1.0%</p>	<p>Fund Manager: Enabling Qapital</p>	<p>40% MANUFACTURERS and VERTICALLY INTEGRATED CLEAN COOKING COMPANIES</p>	
	<p>Fund Life: 7 years</p>		
	<p>Instruments: 70% debt, 30% quasi-equity/equity</p>		
	<p>Ticket Size: \$1-5 million, average of \$2-3m</p>		
	<p>First Close: 2Q 2020</p>		
	<p>Final Close: 4Q 2020</p>		
	<p>TA Facility: \$6-8 million excluding personnel costs</p>		
	<p>TA Manager: Clean Cooking Alliance</p>		