THE TRUTH ABOUT COOKING LANDSCAPE ANALYSIS

October 14, 2016





McCANN GLOBAL HEALTH



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WHERE WE'VE BEEN

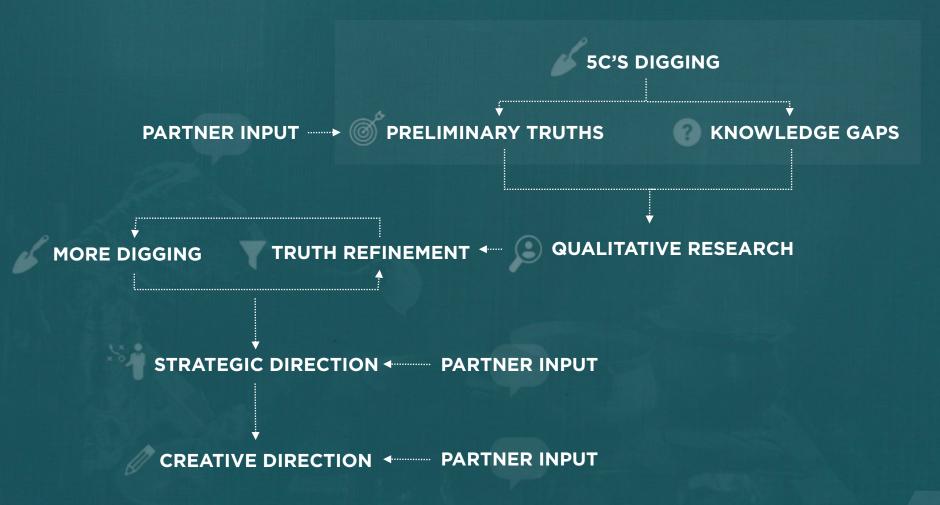
McCann/Africare selected to partner with GACC to develop a market shaping strategy and communications campaign to bolster the LPG cookstove demand in two states in Nigeria.

WHERE WE ARE

McCann/Africare has conducted a landscape analysis of current LPG cookstove market in Nigeria, with specific focus on Abuja and Lagos.

WHERE WE'RE GOING

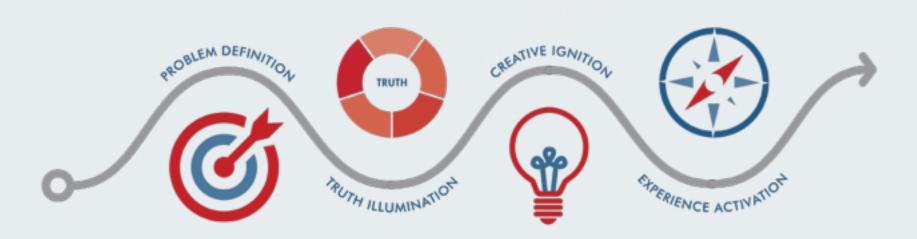
Develop an evidencebased communications strategy, creative campaign, and community mobilization program, to strengthen the uptake and correct usage of LPG cookstoves in two states.



INTRODUCTION TO THE 5CS FRAMEWORK

TRUTH TO MEANING

It all begins with our process. We start with the central problem and work to identify the drivers around that problem, uncovering the core truths across the category, culture, connections, company, and consumer. From there, the truths lead to a powerful creative idea that we activate across the brand experience.



CONDUCTING A TRUTH AUDIT

A disciplined process of digging in the places that matter

CULTURE

• Cultural barriers or differences to overcome

CONSUMER

- Our target market
- Their motivations, interests, and influences
- Their attitude toward the behavior, product or service

CONNECTIONS

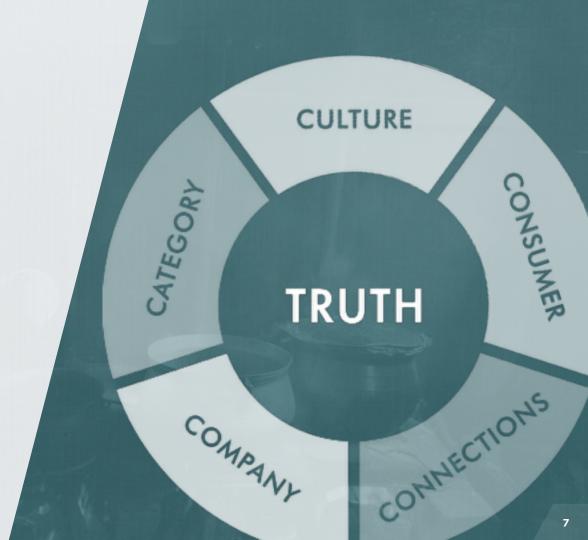
• Channel preferences

COMPANY

• Overview of the organization or company

CATEGORY

- Category characteristics
- Competitive set



THE 5CS

CULTURE

Understanding consumers as whole must go beyond the individual, as cultural beliefs are one of the strongest forces shaping the consumer mindset. Sometimes they work in our favor, but more often than not, they fuel hurdles.

CONSUMER

Foundational understanding of consumers beyond demographics to include attitudes/beliefs and behaviors.

CONNECTIONS

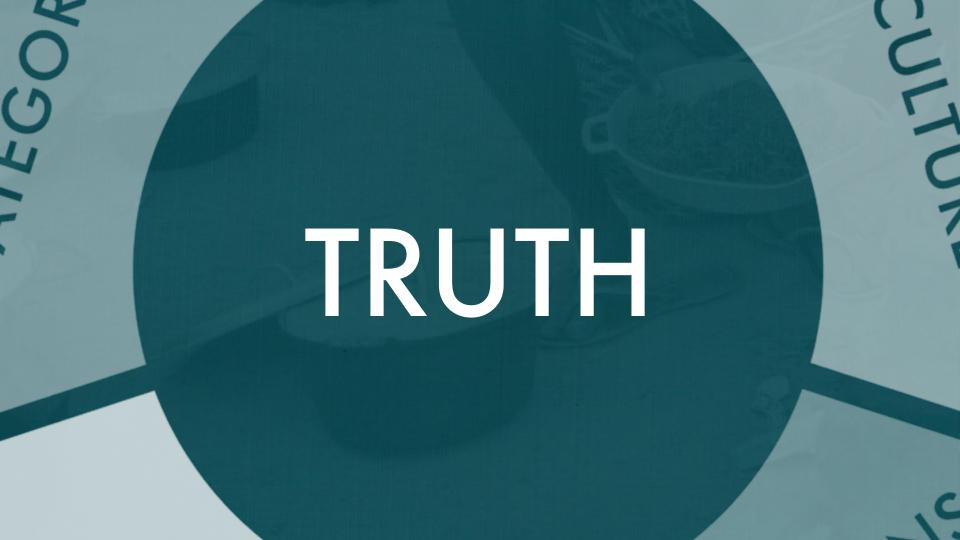
Understanding how our consumers interact and influence each other, as well as the impact from other sources.

CATEGORY

Seeing the category through the eyes of the consumer, as well as competitors within the category, can help us uncover points of tension and opportunity for our efforts.

COMPANY

The consumer-facing brand, service, or offering and any existing perceptions that exist.



PROCESS PRINCIPLES

BE CURIOUS

BE INSIGHTFUL INTO THE HUMAN CONDITION

BE REAL

RESPECT THE AUDIENCE

CULTURE MER

BIG **EXPLODING POPULATION** LARGEST AFRICAN ECONOMY **RAPID URBANIZATION** CULTURE | 12

EXPLODING POPULATION

LARGEST POPULATION IN AFRICA

Nigeria's population has doubled over the past 25 years:

1990: 96,000,000

2015: 182,000,000

YOUNG POPULATION

As of 2015:

Median age is 18

44% of the population is under 15

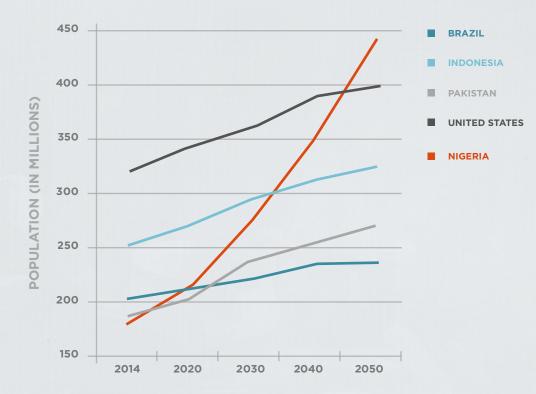


EXPLODING POPULATION

WITH NO SIGNS OF STOPPING

The population of Nigeria is projected to surpass that of the United States by about 2050, at which point it would become the third largest country in the world.

POPULATION PROJECTIONS OF THE 3RD-7TH LARGEST COUNTRIES



LARGEST AFRICAN ECONOMY

• \$509.9bn GDP

Recently overtook South
 Africa as largest economy in
 Africa.

 Oil is Nigeria's main source of foreign exchange earnings and government financing.



RAPID URBANIZATION

HIGH RATE

Current urbanization rate around 5%, compared to: India (2.3%); China (3%); African Average (3.5%)

RURAL TO URBAN RATIO

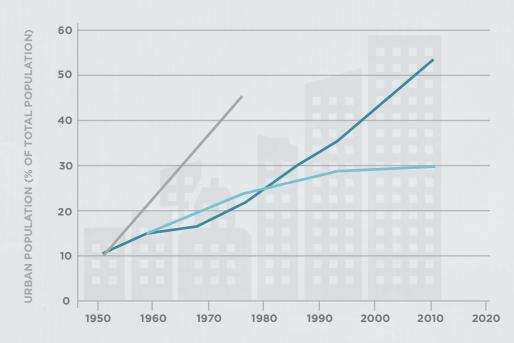
In 2015 it was estimated that almost 50% of Nigeria's total population was living in an urban environment.

URBAN EXPANSION

As the population of urban centers grows, so do the city limits. There has been a huge increase in reclassified—'rural' to 'urban'—settlements.

URBANIZATION IN NIGERIA, 1950-2020





CENTERS OF URBANIZATION

TOP FOUR

At the national scale, the most extensive urban spatial expansion has been concentrated around 4 massive urban fields, 2 are <u>Abuja & Lagos</u>.

ABUJA

Abuja is the capital city of Nigeria. Between 2000 and 2010 Abuja grew at the rate of 139.7%, the fastest in the world. It is located in the centre of Nigeria, within the Federal Capital Territory.

LAGOS

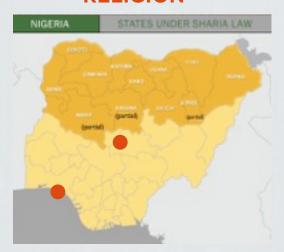
Lagos, Nigeria's largest city, was once once the capital of Nigeria. While it may not be the judicial capital, it is the economic capital of Nigeria. It is located in South west of Nigeria on the southern coast of Lagos State.





IMPACT OF GEOGRAPHIC LOCATION

RELIGION



POLITICS



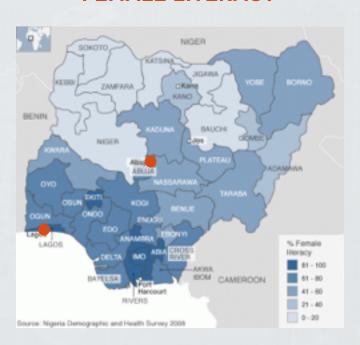
ETHNICITY



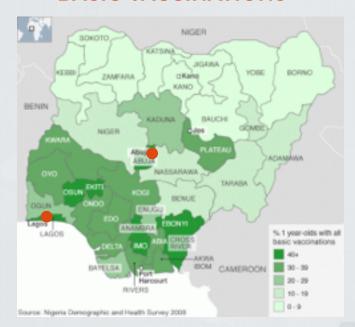
(Lewis, 2011) (Kaplan, 2012)

IMPACT OF GEOGRAPHIC LOCATION

FEMALE LITERACY



% OF 1 YEAR-OLDS WHO HAVE BASIC VACCINATIONS



(NPC, 2009)

SECURITY CONCERNS

Boko Haram has been terrorizing North East Nigeria for the past 7 years.

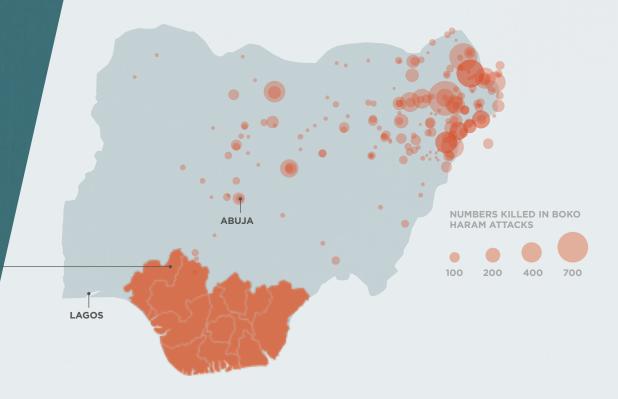
Abuja has experienced multiple attacks; the worst was a bombing in April 2014 that resulted in 88 deaths.

NIGER DELTA CONFLICT

Since the mid 90's a variety of local militant groups have been targeting major foreign oil companies.

BOKO HARAM FATAL ATTACKS

Civilians reported killed in Boko Haram attacks Jul 2009–Jan 2015



BIG PROBLEMS

ECONOMIC RECESSION
EXACERBATED INEQUALITY
CULTURE OF CORRUPTION

ECONOMIC RECESSION

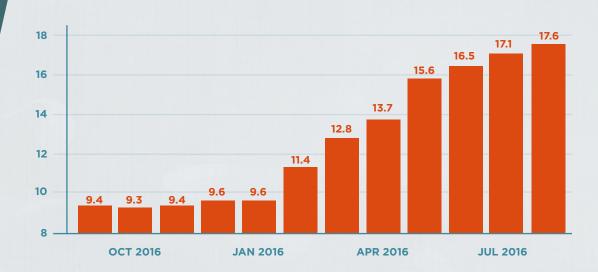
TOO MANY EGGS IN ONE BASKET

Oil prices have fallen significantly over the past year, and Nigeria has entered a major economic recession after almost a decade of significant economic prosperity.

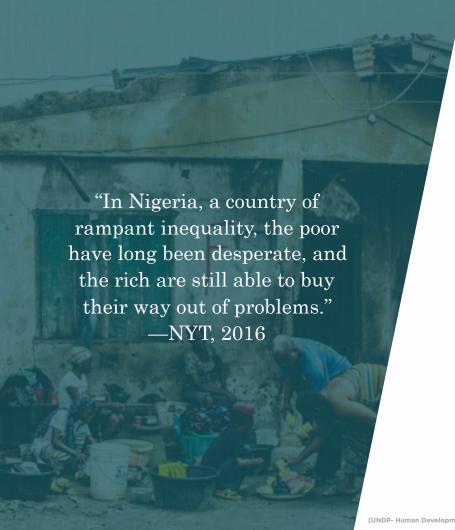
AROUND 4.6 MILLION
PEOPLE HAVE LOST THEIR
JOB IN THE PAST YEAR

INFLATION IS AT AN 11 YEAR HIGH OF 17%

NIGERIA INFLATION RATE



gerian Embassy) (NBS, 2016) (BBC, 2016) (CIA Fact Book, 2015) (Trading Economics, 2016)



EXACERBATED INEQUALITY

152 OUT OF 188 COUNTRIES ON THE SCALE OF THE HUMAN **DEVELOPMENT INDEX**

The Human Development Index is a composite of life expectancy, education, and income per capita indicators.

BARELY GETTING BY

Most recent statistics show that 76.6% of the population earns less than \$2 a day, 62% less than \$1.25 (extreme poverty).

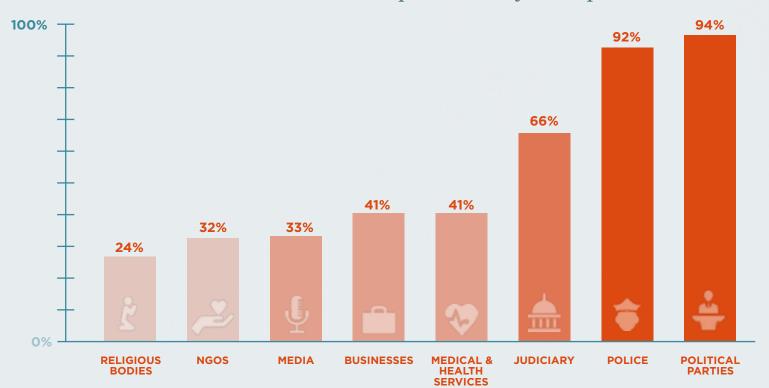
CULTURE OF CORRUPTION

- Ranks 136 out of 168 on the Corruptions Perception Index
- 63% reported paying a bribe in 2010
- 73% felt that corruption has increased
- NGOs, religious organizations, and the media were perceived as the least corrupt institutions



CORRUPTION PERCEPTION

% of public who feel the mentioned institution is corrupt/extremely corrupt



(Transparency International, 2015)



RURAL-TO-URBAN MIGRATION IN LAGOS AND ABUJA

A World Bank study found that ruralto-urban migration accounts for 97% of migrant flows in Lagos State and 85.1% in Abuja.

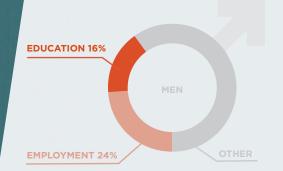
MEN AND WOMEN MIGRATE EQUALLY

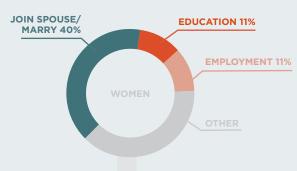
Historically men have been significantly more likely than women to migrate, but data shows no significant difference in migration propensities between men and women.

THOSE IN SEARCH OF OPPORTUNITY

The most common reasons for men to migrate are to seek employment (24%) and to further education (16%).

For women the most commonly cited reasons were to join a spouse or marry (40%), to further education (11%) and to seek employment (11%).





(Bloch et al., 2015) (Oyeniyi, 2013)

YOUNG AND EDUCATED

- It is rarely the poorest and most vulnerable who abandon the countryside for the city but rather the young and relatively well-educated.
- These individuals leave with some assets or resources—and often have social connections in the target destination.
- Education level, in particular, is highly correlated rural-to-urban migration.



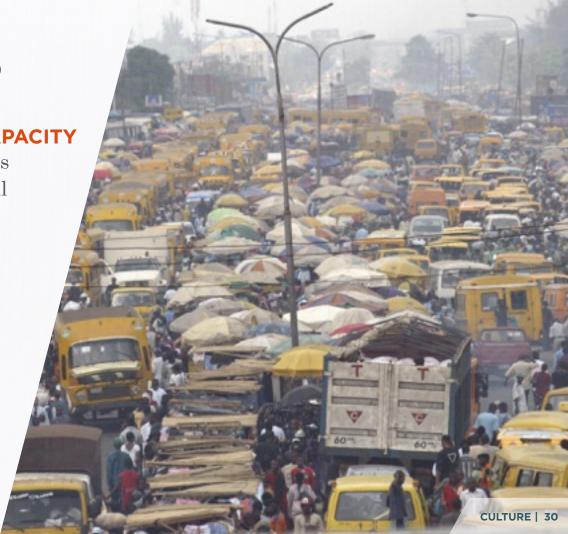
GROWING PAINS

POPULATION GROWTH > CITY CAPACITY

An estimated 2,000 people enter Lagos every day, many ending up in informal settlements/slums.

HIGH DEMAND, LIMITED SUPPLY

The housing shortage has inflated the cost of renting and purchasing houses and priced millions of people (particularly low & middle income) out of obtaining housing.





LAGOS: "AFRICA'S FIRST CITY"

LARGEST CITY IN NIGERIA

But the exact population is unclear: 17 Million—21 Million

HOME OF NIGERIA'S MOST AFFLUENT...

10 of the 13 Richest Nigerians call Lagos home. Lagos is well known for its lavish, extravagant lifestyles and the "get rich" atmosphere and attitude.

...AND SOME OF THE LEAST

Lagos is "bursting at it's seems", the population is ever increasing and it is estimated that 66% of the population is living in slums.

RELIGION

Predominantly Catholic

ETHNICITY

Primary: Yoruba

Secondary: Awori & Egun

INSULATED

Lagos' greater degree of self-sufficiency is likely to insulate it from an oil price downturn compared to its peers.

ECONOMIC CAPITAL OF NIGERIA

The most self-reliant state in the country with around two thirds of revenue from internally-generated sources.

(Pwc, 2015) CULTURE | 32



LAGO'S SLUMS: MAKOKO

Lagos' Largest, and Highest Profile Slum

SEEKING TO STAY

After bouts with demolition in 2012 the people of Makoko, with assistance from Urban Spaces Innovation, submitted a plan to develop Makoko into a livable and sustainable community.



ABUJA: STUCK IN THE MIDDLE

AT THE CENTER OF IT ALL

"Abuja was planned as a capital where all Nigeria's ethnic groups, tribes, and religions would come together in harmony."

EXTREMELY DIVERSE

Its seems that Abuja's central location and political significance has brought together a bit of every part of Nigeria.

UNSUPPORTED GROWTH

According to the World Economic Forum Abuja is growing at an "eye-wateringly fast rate", and its current infrastructure is not readily equipped to handle it.

Slums and settlements are interwoven in between modern buildings.

"From the comfort of the first floor of Central Bank of Nigeria Quarters (CBN), you can see the slum dwellers of Garki, the biggest slum in Abuja."

—The Sun, 2016

"We don't have money to pay the kind of rent they charge in Abuja. Where I am living is just thirty thousand Naira in a year. We share toilets with other tenants and cook outside in a makeshift kitchen. Of course we are not comfortable, but what can we do?"

—Mother of six, living in Abuja slum, 2016

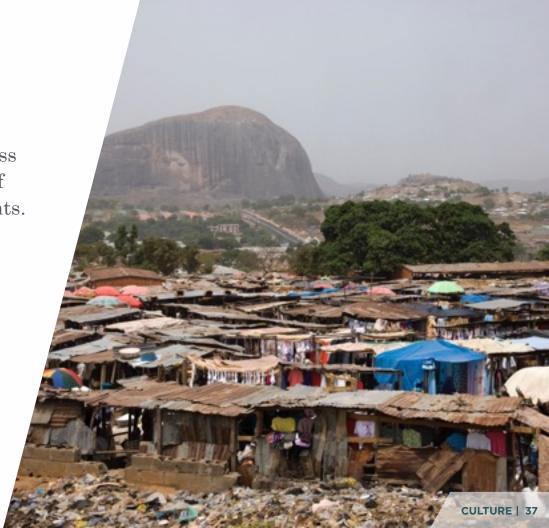
ABUJA'S SLUMS

ABUJA HAS THE SPACE, BUT IT'S TOO EXPENSIVE

The population density in Abuja is far less than that of Lagos, but the high prices of rent force people into informal settlements.

NOT ALL MIGRANTS

Before Abuja, Zuma rock was surrounded by a variety of indigenous villages. Construction displaced these villages, and now members of these villages make up a decent proportion of township inhabitants.







DIVERSE ETHNICITIES

ETHNIC

Composed of more than 250 ethnic groups; the most populous and politically influential are: Hausa and the Fulani 29%, Yoruba 21%, Igbo (Ibo) 18%, Ijaw 10%, Kanuri 4%, Ibibio 3.5%, Tiv 2.5%

LANGUAGE

English (official), Hausa, Yoruba, Igbo (Ibo), Fulani, over 500 additional indigenous languages

BLOOD LINE

Nigerians strongly identify with their ethnic backgrounds.

THE "UNOFFICIAL" LANGUAGE OF NIGERIA: PIDGIN ENGLISH

It is used very commonly throughout the country, especially by lower income groups

(CIA Fact Book, 2015)

(CIA Fact Book, 2015)

DIVERSE RELIGION



RELIGIOUS COMMITMENT

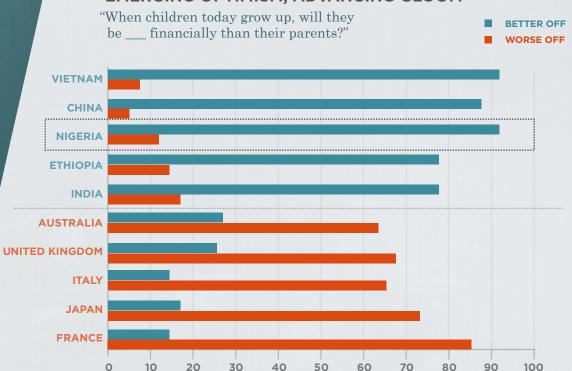
Nigeria has been noted as a leading religious nation with about 91% of the population attending religious services and 95% praying regularly.



OPTIMIST

- Even in the face of all the aforementioned difficulties, Nigerians constitute some of the most optimistic people in Africa.
- In 2015 almost 85% of Nigerians were optimistic about the future.

EMERGING OPTIMISM, ADVANCING GLOOM



Note: Charts top and bottom readings in 40-country poll.

Source: Pew Research Center survey conducted March 25-May 27, 2015. Data based on 45,435 in-person and telephone interviews in 40 countries with adults 18 and older.

(TAA, 2013)

FAMILIAL STRUCTURE

IMPORTANCE OF CHILDREN

"Children are very important to Nigeria families because parents believe that their children will provide support for them in their old age."

IMPORTANCE OF MARRIAGE

Getting married (in addition to having children) having children are regarded as musts in Nigerian culture.



FAMILIAL STRUCTURE

IMPORTANCE OF EXTENDED FAMILY

Extended family members are considered as being part and parcel of one's immediate family and are consulted for individual decisions.

HIGH REGARD FOR ELDERS

Family relationships are mostly guided by strict system of 'seniority'



ENDURING PATRIARCHY

PATRIARCHAL & OPPRESSIVE

The latest Social Institutions and Gender Index report ranks Nigeria 79 out of 86 countries.

DEMOGRAPHIC VARIATIONS

Almost all cultures with in Nigeria have patriarchal roots, but some currently institute these traditions more others.

SHARIA INFLUENCE

Sharia customs traditional favor men. Many regard tenants of Sharia law as infringements on women's rights.



CULTURE SUMMARY NIGERIA



Strong, yet fragile (oil dependent) economy



Urbanization driving both modernization and structural inequalities/violence



Plagued by mistrust and high levels of perceived corruption

CULTURE SUMMARY

NIGERIA



Strong, yet fragile (oil dependent) economy



Plagued by mistrust and high levels of perceived corruption

LAGOS



Economic and Cultural Capital



Known to be "lavish" and extravagant



Nigeria's Melting Pot



Over-populated townships, and over-priced homes

CULTURE SUMMARYSOCIAL STRUCTURES & TRENDS



Extremely diverse, young, on-the-move and exploding population



Family Centric & Family First



Optimists
grounded in strong
religious beliefs



Ambitious and willing to take risks

CULTURE TRUTH:

Nigeria boasts a powerful economy that benefits a fortunate few who live lavish lives and appear to be immune to the problems that plague the rest of society. People recognize this and covet the success of the fortunate few.

CULTURE TRUTH:

But, they won't find their better tomorrow if they remain in the countryside, and the government certainly is not in a position to help.

To get theirs, they need take the risk, travel to the city, and roll with the punches.

They believe that...

CULTURE TRUTH:

Better Days are Ahead

CONSUMER

MACRO TRENDS RESPECT FOR BRANDS MATERIALIST ON A BUDGET SECOND HAND SALES SHORTER TERM PURCHASES **LOOKING FOWARD CONSUMER | 53**

RESPECT FOR BRANDS

Brands play an important role in Nigerian society

FAVOR INTERNATIONAL BRANDS

Nigerians prefer buying products from international brands, often considering them to be of a higher quality than locally produced alternatives.



"I would call us the ambitious class, we're hardly middle class but we strive hard to live the life we want. We can't afford most of the things we have, but we buy them anyway because we aspire for the lifestyle they bring."

MATERIALISTS ON A BUDGET

DRESSED TO IMPRESS

Nigerians believe looking good commands respect from the people around you.

FRUGAL FASHION

Many cannot afford to purchase the real deal will opt for an imitation because they yearn for the status it brings and the respect it commands. **SECOND-HAND SALES**

BARGIN SEEKING

Regardless of income, Nigerians are notorious bargain hunters, haggling at markets for many "big-ticket' items, including electronics, appliances, cars and furniture are bought second-hand.

In some cases it's not just price that drives the uptake of second -hand goods, consumers may believe that imported second-hand goods are more durable.



SHORT TERM PURCHASES

LIVING DAY-TO-DAY

Most Nigerian consumers buy for the purpose of meeting immediate needs and limited daily budget.



LOOKING FORWARD

GREATER ASPIRATIONS

Low-income respondents living in rented and rooming-house types of accommodation 73% of them expressed an intention to move to another residence.

56% of this category of respondents intend to move into self-contained flats.



PURCHASING DECISIONS AND INFLUENCES

PURCHASING POWER
PURCHASING INFLUENCES

PURCHASING POWER

WOMEN

Their Domain

MAINTAIN THE HOME

Across all Nigerian ethnicities, women are traditionally responsible for cooking, cleaning, childcare, fetching water, fetching fuel (normally wood).

COOKING IS UNDER THEIR CONTROL

Because it is classified as "feminine" women traditionally decide what is being cooked and how it is prepared, this may include section of fuel type.

MEN

Their Money

In both Lagos and Abuja, 80% of women decide how their cash earns are spent, but have little say in how their husbands money is spent - Given the price of cookstoves/LPG (and wage disparities) men will likely finance the purchase.

The degree of male dominance in decision making varies per ethnicity and religion. In Abuja, men in muslim households are likely to be more dominant and/or require women be kept indoors.

8

PURCHASING INFLUENCES

FAMILY DRIVEN

- The family constitutes the most influential primary reference group shaping a buyer's behavior.
- As per Nigerian culture senior individuals will have a more significant say.
- As it pertains to household decisions, the husbands mother will likely hold a very strong opinion.

COMMUNITY DRIVEN

People often rely heavily on recommendations from friends outside of their family.



OUR TARGET:

YOUNG, MARRIED WOMEN LIVING IN LOW-INCOME COMMUNITIES



HOUSEMAKERS AND BREADWINNERS

MAINTAIN THE HOME

Women are traditionally responsible for cooking, cleaning, childcare, fetching water, fetching fuel (normally wood).

... AND HOLD JOBS

At the time of the DHS 2013 survey, 73% of women in Lagos were employed, and in Abuja it was 66%.

HEAD CHEFS

COOKING IS UNDER THEIR CONTROL

Because it is classified as "feminine" women traditionally decide what is being cooked and how it is prepared, this includes section of fuel type.

PRIORITIZE FAMILY NEEDS

Cooking a proper meal on time and in sufficient quantity is more more important than fuel choice.

Food purchases account for as much as 70% of family income.



CONSUMER SUMMARY

MACRO TRENDS



Bargain hunters
Invested in their
Self Image



Prioritize satisfaction of immediate, shortterm needs



Respect and Value Brands

CONSUMER SUMMARY

TARGET AUDIENCE



Wife, Mother,
Homemaker, &
Breadwinner, they have
little time to spare



Put the wellbeing of their family first



An enduring patriarchy limits their decision/ purchasing power, but this may not be the case with cooking

CONSUMER TRUTH:

Family comes first. As mothers, wives, and overall caregivers their families (both immediate and extended) depend on them for everyday essentials. They are the keystone of the family unit.

CONSUMER TRUTH:

However, keeping the family satisfied is difficult on such an impossibly small budget. They make the most out of every penny, hunting for the best deal and attempting to negotiate a better one when they find it.

At the end of the day though there's not much left to satisfy their own desire and aspirations.

They are...

CONSUMER TRUTH:

Striving while Struggling

CONNECTIONS

CRE

0

THE MARKETPLACE **INFORMAL SHOPPING MORE THAN A MARKET EXPERIENCED NEGOTIATORS CONNECTIONS | 71**

The din is truly remarkable; traders bellow prices of their wares at the top of their lungs in different languages, microphones blare advertisements for trado-medical products offering cures for everything under the face of the sun... Traders, much like telecommunication masts, bombard the airwaves with every type of frequency, while customers sieve through them tuning in only to the signals they fancy.

'THE MANY FACES OF ASWANI MARKET'
THE SUN NEWSPAPER, NIGERIA, NOVEMBER 2012



INFORMAL SHOPPING SECTOR DOMINATES

FAMILIAR FACES

Many consumers still prefer to make purchases, big or small, in the open air market where they can form intimate relationships with sellers.

FUEL MERCHANTS

While it's possible in rural areas for women to collect their own wood, their urban counter parts mostly relay on firewood, coal, and kerosene merchants in informal markers to satisfy their fuel.

MORE THAN A MARKET

A WAY OF LIFE

Of women who are employed in Nigeria, a majority of them work in the sales and services sector.

53% of women in Abuja and 66% of women in Lagos work in the sales and services sector.





EXPERIENCED NEGOTIATORS

BARGAINING

At these markets consumers have the have the opportunity to haggle for products. Striking a deal saves money and is rewarding in itself.

CULTURAL PREFERENCE

Consumers often prefer traders who speak the same language as them, as they are traditionally able to barter a better deal. LITTLE TIME TO SPARE

ON THE MOVE

Many Nigerian's will choose to purchase groceries and other household items on their way home from work at familiar road side stands or markets they pass on their commute.



OTHER FORMS OF CONNECTIVITY

PERSONAL CONNECTIONS
COMMUNITY HIERARCHIES
MEDIA PENETRATION
MOBILE

PERSONAL CONNECTIONS

Word of mouth plays a key role in connecting.

Within communities attention is paid to trusted opinion leaders— i.e. community leaders, community doctors, senior family members, etc.

Oando distributed LPG cooking stoves to women entrepreneurs in Ipetumodu area of Osun State in Western Nigeria





COMMUNITY HIERARCHIES

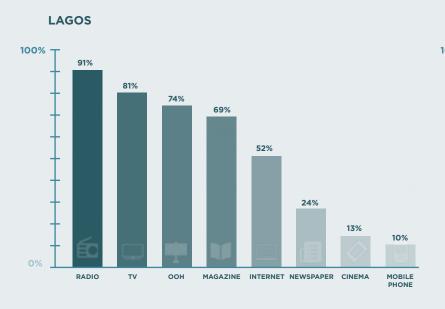
INFORMAL GOVERNMENTS

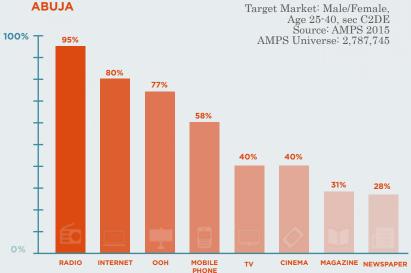
Many townships and low income communities have an informal government in place.

For example, in Makoko local chiefs, known as Baales, preside over various parts of the waterfront.

MEDIA PENETRATION

NOTE: TV, Radio, and Print is accessed at least once in the last one week, while others are accessed at least once in the last four weeks





FINDINGS:

LAGOS: Radio, TV, OOH have the highest penetration

ABUJA: Radio, internet, OOH have the highest penetration with TV on the average

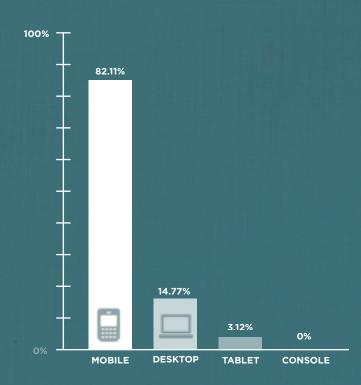
MOBILE - MORE THAN A PHONE

ON THE RISE

- 68 mobile phones per 100 people
- 89% of Nigerians own a cellphone, 27% of whom own a smartphone

INTERNET ACCESS

Of Nigerians who access the internet, 82% do so using a mobile phone



Research Center, 2015) (NPC, 2014) (Stat Counter, GlobalStats, 2016)

CONNECTIONS SUMMARY



Open-Air & Open Prices



Informal & Interpersonal



Value Seller-Buyer Relationships



Radio is King



Trust in Community
Opinion



Mobile Phones = Internet Access

CONNECTIONS TRUTH:

In a country plagued by corruption, scams, theft, and fraud it's difficult to decide who you truly trust.

Our consumers navigate this uncertainty by leveraging various interpersonal relationships. Rather than purchasing goods at formal shopping centers, they opt for the many informal markets woven throughout urban streets.

CONNECTIONS TRUTH:

They are familiar and comfortable in these markets. They know the rules, can recognize a bad deal, are able to negotiate prices, and can form fruitful interpersonal relationships with sellers.

Similarly, for information and the news they tune in to local radio stations and seek testimonials and advice from trusted members of their communities.

Put simply...

CONNECTIONS TRUTH:

Relationships Rule



COOKING FUEL

FUEL PREVALENCE VS FUEL PREFERENCE
FUEL ACCESS: AFFORDABILITY AND AVAILABILITY

FUEL PREVALENCE # FUEL PREFERENCE

HIGH PREVALENCE OF TRADITIONAL METHODS

90 million Nigerians, and almost all public institutions, cook with wood on the traditional "three-stone fire."

PREFER KEROSENE, BUT USE WOOD

- A study conducted in 2012 found that while 78% of women preferred kerosene, 75% of the women cooked with wood/coal.
- About 60% of women chose fuel-wood energy because it was available cost-free.



LIMITED ACCESS: AFFORDABILITY

PRICE AS A PREDICTOR OF FUEL CHOICE

In a majority of the literature exploring predictors of fuel choice, both in and outside of Nigeria, the authors stress the predicting power of price.

BLACK MARKET PRICE GOUGING

Despite governments attempts to regulate price, fuels, in particular kerosene, are notorious for being purchased in bulk at low prices and sold for far higher at informal markets during times of short supply.

HIGH PRICES CAUSES LOW DEMAND, OR LOW DEMAND CAUSE HIGH PRICES?





LIMITED ACCESS: AVAILABILITY

LACK OF SUPPLY

- Due to a lack of demand, most LPG is exported.
- Kerosene shortages occur frequently, leaving many with out fuel.
- Fuel shortages are further complicated by the frequent attacks carried out against oil companies and their pipelines.

OUT OF REACH

- With short supplies, the locations to buy nonbiomass fuels are few and far between.
- Studies exploring predictors of LPG uptake found that the physical distance was negative correlated with LPG uptake.

OTHER USES OF SMOKE/WOOD FUEL

FOOD PRESERVATION

Smoking meats and fish is common practice in communities that lack refrigeration capabilities.

CONSTRUCTION

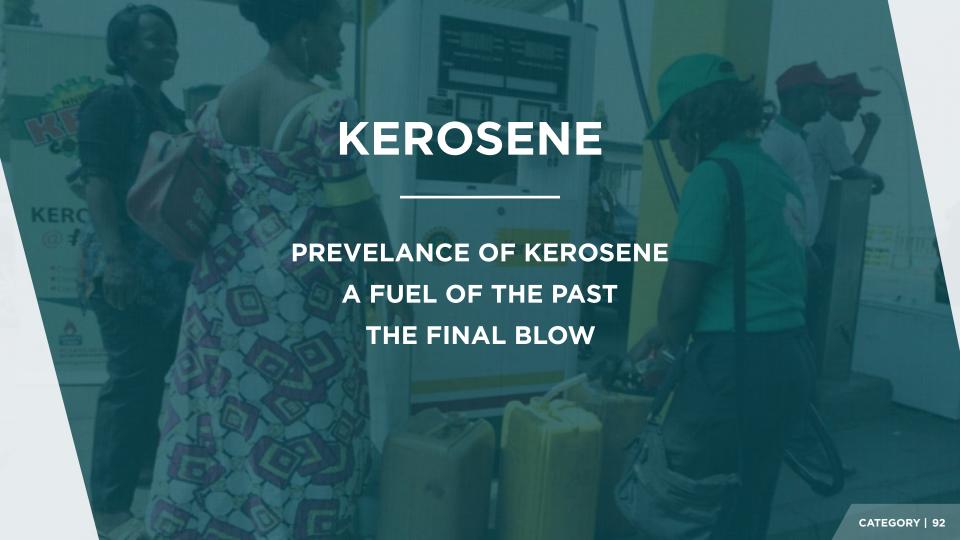
In some of the interview sessions householders indicated that when they were constructing a new building and wanted to move in quickly, they used wood smoke to fast track the drying of the mud blocks. It is believed that the wood smoke will prolong the life of that building.

TRADITIONAL MEDICINE

The traditionally-held belief is that the procedure involved in preparing medicinal herbs influences its potential effectiveness. A special fireplace is created for cooking medicinal herbs in homes with specific arrangements of the wood fuel in the fireplace.

"Ordinarily when cooking my meals I don't pay attention to the wood arrangement, but for the herbs, the wood must not be chunked in the fireplace but be appropriately arranged at an equal distance to other wood"

"The use of wood smoke does no harm to the food; it only prolongs food shelf life"





PREVALENCE OF **KEROSENE**

EQUIPPED FOR KEROSENE

Households in the urban areas depend heavily on kerosene as a fuel type for cooking.

77% of urban homes own a kerosene stove.

KEROSENE FOR LIGHTING

Kerosene is the primary energy used for lighting homes in the south.

HISTORY OF KEROSENE COOKING

In 1980 biomass only accounted for 47.6% of cooking energy - Kerosene accounted for 49%.

Kerosene has been on the decline - now biomass accounts for around 90% of cooking energy.

A FUEL OF THE PAST

RISING PRICES & MISSING FUEL

Many of households have been forced to switch to traditional fuel sources due to the high cost of kerosene and its scarcity in recent time.





THE FINAL BLOW

Prices of kerosene skyrocketed at the start of this year when the government removed the subsidy on kerosene.

(Opeyemi, 2016) CATEGORY | 95

COOKING

INGRAINED IN CULTURE & TRADITION
NECESSARY SKILL

INGRAINED IN CULTURE & TRADITION

Cooking touches on an entire lifestyle, which can include gathering wood (an activity with a strong social component) as well as cooking (an activity heavily influenced by tradition).

Changes in lifestyle may bring significant benefits—the ability to replace wood gathering with productive economic activities, for example —but they are not undertaken lightly.



NECESSARY SKILL

HIGH EXPECTATIONS

Women are expected to be able to cook, and cook well, in accordance with Nigerian traditional meals. Inability to cook may be regarded as poor upbringing on the part of a women parents.

Therefore, women are taught by their mother how to cook from a young age, helping out in the kitchen as early as 7 years old.

(Akintan, 2014) CATEGORY | 98

GETTING TO CLEAN

THE PROBLEM WITH TRADITIONAL METHODS

PERCEPTIONS OF CLEAN COOKSTOVES

BARRIERS

STOVE STACKING

THE PROBLEM WITH TRADITIONAL METHODS

SILENT KILLER

Cooking smoke causes over 95,000 deaths, mostly women and children in Nigeria annually. For those who survive the smoke there are serious health problems.

EXPENSIVE AND INEFFICIENT

- Uses 90% more wood than is necessary
- Must purchase in urban environments

ENVIRONMENTALLY UNFRIENDLY

Fuel wood is a major cause of deforestation CO2 emissions from millions of cooking fire are contributing to greenhouse gases.

TOP THREE KILLERS IN NIGERIA:

Malaria

HIV/AIDS

Upper Respiratory Infections

PERCEPTIONS OF CLEAN COOKSTOVES

DIFFICULT

"Improved cookstoves that are more complicated than traditional technologies may require training and ongoing correct use to reap their benefits."

UNIFORM

Traditional stoves are home made, easily modifiable, and easy to fix. They are entirely customizable.

Most clean cookstoves fall under a "one size fits all category."

EXPENSIVE

In a survey of women from Abia State 87.5% cited the high cost of start up as a reason for not using an LPG cookstove.

"Our food types (beans, yam, rice, cassava flour) can take a longer time to prepare [...], not only that we use big cast iron cooking pots that require much heating before cooking can be done [...] considering all these factors then, I think firewood will be faster during cooking [...] also this type of pot is not convenient for use on the kerosene stove."

LPG COOKSTOVES: BARRIERS

AVAILABILITY COST **LONG-TERM INVESTMENT** PERCEPTION OF RELIABILITY LOW HEALTH RISK PERCEPTION "DANGEROUS" **NO SECONDARY USES**

STOVE STACKING

TWO FOLD BEHAVIOR CHANGE

(1) Uptake & (2) Exclusivity
A clean cookstove is only effective
if it is used <u>exclusively</u>. If clean
and traditional stoves are used
simultaneously, there is no

MIXING FUEL TYPES

benefit to the clean stove.

Due to rising prices of kerosene, rather than cooking with kerosene many families choose to instead use it only to light biomass.

HOUSE-HOLD SIZE

Household size is commonly positively correlated with likelihood of stove stacking - Likely because they are able to cook greater amounts of food in a shorter period of time.

OLD RELIABLE

Negative perceptions regarding the reliability and the availability of fuel may drive families to keep traditional stoves in place "just in case."

CATEGORY | 103

SUPPORT FOR CLEAN COOKSTOVES

AN AMBITIOUS GOAL

MIXED REVIEWS

CONCERNING ASSOCIATIONS

FACING HEADWINDS

NATIONAL SUPPORT





Nigerian Alliance for Clean Cookstoves' set the goal to introduce 10 million fuel efficient and clean cookstoves to Nigerian homes and institutions by 2020.

MIXED REVIEWS: THE GOOD

Reporting on Positive Health Effects

Lauded as a Necessity for Advancement

Potential Jobs Creator

Negative Reporting on Traditional Cooking Methods





UNDP: Access to Renewable, Clean Energy Necessary for Sustainable Development

- 100

Cooking with firewood dangerous for mothers, unborn babies — Expert

War against traditional stoves, open fires: Many winners, few losers

Posted By: OLUKOREDE YISHAU on: November 28, 2014 In: Online Special No Comments



MIXED REVIEWS: THE NOT SO GOOD

Stakeholders seek minister's intervention in N9.2bn cookstoves project impasse

Posted By: Olufemi Adeosun on: March DB, 2016 In: Business, Real Estate & Environment. No Comments APrint Ci Email

N9.2bn Clean Cook-Stove Project Controversy Worries Group

Senator Saraki Slams N9.3b 'Clean Cookstoves' Contract

The chairman of the Senate Committee Chairman on Environment & Ecology, Senator Bukola Saraki has called for a review of the controversial N9.3 billion Clean Cookstoves Contract recently awarded by the Federal Government, citing lack of transparency and accountability in the procurement process.

Anxiety mounts over FG's N9.2bn cook stoves project

by Nigeria Cleancooking | Sep. 1, 2015 | News | 0 comments



AFRICA June 10, 2005 to 42,0780 Challe Stelle

Questions Surround Nigeria Clean Cook Stove Program

CONCERNING ASSOCIATIONS









"BIG-OIL"

FACING HEADWINDS

RISING PRICES

Cost of LPG and cylinders have rising.

DECLINING ACCESS

Access to kerosene has also declined in recent times.

MOVING DOWN THE LADDER

Families are climbing down the cooking energy ladder.

According to the National Bureau of Statistics, 72% of Nigerian households depend primarily on firewood for cooking.

IS 10 MILLION CLEAN COOKSTOVES BY 2020 THREATENED?

Several Nigerian families are climbing down the energy ladder. With the devaluation of the Naira, the prices of LPG and kerosene have soared and families are going back to firewood use. This is a big threat to the Nigerian Alliance for Clean Cookstoves' goal...

— Nigerian Alliance for Clean Cookstoves Newsletter, 9 September 2016

CATEGORY | 109

CATEGORY SUMMARY



It's Not <u>Just</u> Cooking



Cost & Availability
Concerns



Cooking with Fuel is Not New



Kerosene is on it's Way Out

CATEGORY SUMMARY



Kerosene Has Set a Poor Reputation for Non-Biomass Fuels



More Than Just Uptake



Strong Stakeholder Commitment



Pro-Cookstoves, But Anti-Process



Running With the Wrong Crowd?

CATEGORY TRUTH:

Clean Cookstoves are traditionally portrayed in a positive light, associated with progress and prosperity and, unlike other target countries, our consumers are not strangers to cooking with non-biomass fuels.

CATEGORY TRUTH:

However, due to fuel shortages and volatile pricing, kerosene and LPG are periodically out of our consumers' reach.

As a result, over time, consumers have slowly slipped down the energy ladder and now find themselves reluctantly cooking with biomass.

CATEGORY TRUTH:

Slipping Backwards







MADE IN NIGERIA

PRODUCED IN COUNTRY BUT PRIMARILY EXPORTED

Unlike kerosene, LPG is produced in country. LPG is primarily exported because there is a lack of demand of it.

FOREIGN FUEL IN HOT WATER

Recently foreign fuel companies have been accused of selling sub-par/"dirty" fuel to Nigeria.

A RICH MAN'S FUEL

INITIAL COST AND FUTURE COSTS

The initial cost of the stove, and the high cost of fuel often deter lows-income families. Stove maintenance and the uncertainty of gas availably and affordability additionally deter families.



MIXED PERCEPTIONS

UNRELIABLE SUPPLY

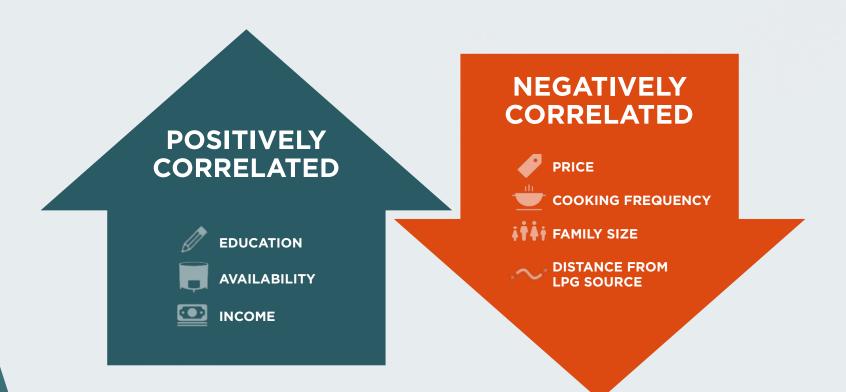
In a survey of women from Abia State who primarily use kerosene, 100% of respondents reported Unreliability/Unstable Supply as a problem associated with LPG use.

DANGEROUS

Individuals may perceive cooking with LPG as dangerous, often associating the stoves with explosions.



PREDICTORS OF LPG UPTAKE



STOVE COMPARISONS

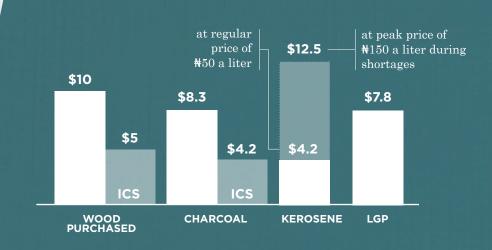
UPFRONT COST OF ONE BURNER COOKSTOVE (IN USD)

USD \$1 = \$150



FUEL COST PER WEEK (IN USD)

USD \$1 = \pm150



STOVE COMPARISONS

FUEL	PURCHASE UNIT	USAGE	COST
WOOD	#### 5 STICKS	1 MEAL	#100 / USD 0.67
CHARCOAL	SMALL BAGS	U 1 DAY	₩150 / USD 1
KEROSENE	I LITER	1 MEAL	#50-150 / USD 0.33-1
LPG	12.5 KG CYLINDER	~3 WEEKS	#3,500 / USD 23

(Accenture, 2011) *prices not up to date

LPG COOKSTOVES: LONG-TERM BENEFITS

EFFICIENCY: SAVE MONEY

HEALTHIER

ENVIRONMENT FRIENDLY

INVESTMENT IN DOMESTIC ECONOMY

LPG COOKSTOVES: SHORT-TERM BENEFITS

CLEANER
SAVES TIME
SMOKELESS
SOCIAL STATUS

COMPANY SUMMARY LPG COOKSTOVES



Economy Booster



"Rich Man's Fuel"



Long-Term Investment



Economic, Time, and Health Benefits

COMPANY TRUTH:

To be developed early 2017

POTENTIAL AREAS TO INVESTIGATE

HEALTH IN ADULTS DRIVE EARNING POWER

FUTURE OF CHILDREN'S HEALTH

CLEANER HOME

STATUS AND MODERNITY

STRAW MAN COMPANY TRUTH

Practical Ambition





CULTURE

Better Days Are Ahead



CONSUMER

Striving While Struggling



CONNECTIONS

Relationships Rule



CATEGORY

Slipping Backwards



COMPANY

Practical Ambition

TRUTH WELL TOLD

What is the most powerful truth that can be applied to the brand to solve the problem?

KNOWLEDGE GAPS



KNOWLEDGE GAPS: CULTURE

DO PEOPLE WANT TO STAY IN THE CITY?

What is the ultimate goal/aspiration that drives them there? Where do they see themselves in 10 years? 20?

WHY SO OPTIMISTIC?

How does this optimism translate into day to day activities?

How does this optimism shape social activities and social interactions?

Who is optimistic? At what point in their life are they?



KNOWLEDGE GAPS: CULTURE

WHAT NORMS GOVERN HEALTH AND HEALTH SEEKING BEHAVIORS?

How important is physical health? What, if anything, takes precedence?

Who is the primary source for health information?

Are there specific health beliefs associated with cooking and food?

AT WHAT CULTURAL LEVEL ARE MARKETING CAMPAIGNS BOTH EFFICIENT AND EFFECTIVE?

Do people identify with their new found urban life and community, or their rural roots?

How does heavily message language/ dialect effect reception?

KNOWLEDGE GAPS CONSUMER

KNOWLEDGE GAPS: CONSUMER

WHAT ARE OUR AUDIENCE'S PRIMARY CONCERNS?

What behaviors do they engage in to mitigate risk?

What/who contributes to the establishment of these concerns?

Where does physical health rank among these concerns?

DOES OUR AUDIENCE SAVE MONEY?

What are they saving for?

How do they save? Formal bank? At home?

DO MEMBERS OF OUR AUDIENCE MAKING ANY PURCHASES OF A SIMILAR VALUE?



KNOWLEDGE GAPS: CONSUMER

HOW CAPABLE ARE OUR CONSUMERS TO ADOPT A CLEAN COOKSTOVE?

Are our consumers able to afford a clean cookstove?

How common is it for landlords to ban certain types of stoves?

Do homes come pre-equipped with a specific type of stove?

WHAT TYPE OF BRANDS DO THEY RESPECT/DESIRE?

What are the main attributes of these brands?

WHAT ARE COMMON SYMBOLIZATIONS OF STATUS?

What current trends appeal to our audience? Who/what defines these status symbols?

KNOWLEDGE GAPS: CONSUMER

WHAT DO WE KNOW ABOUT TRANSITION FROM BIOMASS TO KEROSENE?

What caused the switch to kerosene from biomass?

Who was responsible for that decision and how was the decision made

What were the ramifications of that decision?

Was there any pushback from influencers, e.g. mothers in law, husbands?

How did people become aware of kerosene cookstoves and through what medium?

Of those who have held out and not switched back to biomass, what is their motivation?

KNOWLEDGE GAPS CONNECTIONS

KNOWLEDGE GAPS: CONNECTIONS

WHAT EXISTING COMMUNITY INFRASTRUCTURE CAN WE TAP INTO?

Does our target audience participate/belong to any organizations?

Are there specific urban community celebrations or reoccurring meetings/gatherings?

WHAT ORGANIZATIONS ARE ALREADY WORKING WITH THESE COMMUNITIES?

Are there any organizations focused on economic well being?

What is the success of these organizations? What do people like dislike about them?



KNOWLEDGE GAPS: CONNECTIONS

HOW CRUCIAL IS HAGGLING?

On big ticket items how much is the price haggled down on average? Is this a critical element of the Nigerian shopping 'experience'?

IN MARKETS, WHAT DO CONSUMERS LOOK FOR IN SELLERS?

What do 'preferred' stands look like?

How affected are they by sales pitches?

How important is the ethnicity of the salesman? Language?

KNOWLEDGE GAPS: CONNECTIONS

WHAT IS OUR TARGET AUDIENCES PRIMARY SOURCE OF ENTERTAINMENT?

How can we tap into it?

WHAT CULTURAL ICONS DO OUR AUDIENCE FOLLOW OR IDENTIFY WITH?

Local? Regional? National? International?

IS OUR AUDIENCE ACCESSING THE INTERNET?

If so, what platform do they us, and how frequently? What sites do they go to?





CATEGORY

WHO SELLS BIOMASS FUELS?

What is their influence on the communities they sell to? How committed are consumers to a particular fuel salesman?

WHAT IS THE BIOMASS EXPERIENCE?

What are common problems with these stoves?

What do the stoves look like?



WHAT WAS THE CAUSE OF THE SWITCH FROM BIOMASS TO KEROSENE IN THOSE USERS?

Who was responsible for that decision and how was that decision made?

What were the ramifications from making the decision to use kerosene? Was there any pushback from influencers, e.g. mothers in law, husbands?

How did people become aware of kerosene cookstoves and through what medium?

Of those who have held out and not switched back to biomass, what is their motivation?





WHAT ARE THE CURRENT PRICES OF DIFFERENT FUELS?

How frequently are these prices changing?

Are there price predictions?

WHO SELLS CLEAN(ER) FUELS? KEROSENE? LPG?

How committed are consumers to a particular fuel salesman?

What is their influence on the communities they sell to?

WHAT IS THE KEROSENE STOVE EXPERIENCE?

What do the stoves look like? How is kerosene sold?

What are common problems with these stoves?

What defines a 'quality' kerosene stove?

WHAT IS THE ACTIVITY TO DATE?

What awareness campaigns have been conducted in Nigeria? In Lagos and Abuja?

Who facilitated these campaigns?

How were these campaigns received?

ARE THERE OTHER TYPES CLEAN COOKSTOVES STILL BEING BE PROMOTED AMONG OUR TARGET AUDIENCES?





KNOWLEDGE GAPS

COMPANY

KNOWLEDGE GAPS: COMPANY

WHAT DO WE KNOW ABOUT OUR STOVE?

Will the same stove be used in both Abula & Lagos?

What brands/entities are already associated with our stove?

What does the stove look like? How do you use it?

Is it already in market? Where? How?

Who owns it now? Is there feedback?

What does a filling station look like?

What is the process to fill your tank?



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