

### How people in urban areas of Zambia learn to cook



Bertha's Chilanga Mulilo, a traditional African marriage ceremony which includes learning how to cook.

Photo credit: Bernard Mwape

## By Sechaba Energy Consultancy January 2023

This material has been funded by UK Aid from the UK government; however the views expressed do not necessarily reflect the UK government's official policies.'









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### **EXECUTIVE SUMMARY**

The document presented below comprises of the Report on the project "How people learn to cook in urban areas of Zambia", under Modern Energy Cooking Services (MECS) programme through Loughborough University (UK) funded by UK Aid. MECS is supporting the transition of low-income economies from biomass to the use of modern energy cooking.

The study used an exploratory research method through in depth interviews, case analysis and focus group discussion to understand how people in urban areas of Zambia learn to cook. The study held 4 focus group discussions mainly for women and men below the age of 35 and above the age of 35. Household interviews and observations were done for 10 households and an online survey was done with 78 individual responses. Finally, a total of 11 food bloggers were interviewed online. The study particularly looked at the dynamics of learning between family members, genders, and age groups (e.g., young to old). For instance, the practices where women are taught how to cook certain traditional dishes as they get married during a ceremony called *Chilanga Mulilo*.

The study found variations in Kitchen set-up across households and different settings. Cooking practices varied between boys and girls when they leave home. Boys were discouraged from taking cooking subjects as they added no value compared to other practical arts subjects. Girls left for university cooked against time while at home they followed strict rules or standards set. Most boys learn how to cook when they leave home because cooking is a survival skill especially in university. Bachelors or men who moved to urban areas from rural areas were found to be mainly eating from restaurants or takeaway foods, unless in situations where two or three men were staying together cooking Rota was developed. Transition to modern cooking services was a challenge for households with disability status. In conclusion, most people in Zambia learn to cook through the woman of the house, a few uses online media and others learn to cook from their friends. Few men interested in learning to cook due to cultural barriers.

Therefore, the study recommends that modern cooking services should be inclusive at all levels of age and gender. Formal education should be utilized in promoting modern cooking techniques for both boys and girls. Lastly, online media should be utilized by working together with food bloggers to promotes modern cooking techniques. Further the study notes gaps in research especially with regards to people living with disability needs to explore how they can be included in modern cooking services.

### 1. INTRODUCTION

### 1.1. Country Profile

Zambia lies in a central position in southern Africa. It is a landlocked country with a total surface area of 752,617 km<sup>2</sup>. The country consists mostly of high plateaus (above 1000 m in altitude) except for the valley of the Luangwa River. According to the 2022 revision of the World Population Prospectus, the total population of Zambia is around 19.6 million. The proportion of children below the age of 15 in 2010 was 46.4 percent%, 50.6 percent% was between 15 and 65 years of age, while 3.1 percent% was









in the range of 65 years or older. As of 2022 census results, 10 million are females and 9.6 million are males. This translates to 1.7 million households in urban areas and 2.3 million households in rural areas. The average household size in urban areas is 4.6 and 5.0 for rural households. Lusaka, which was our focus area has a total number of households of 687,923 followed by Copperbelt 581,138 households.

Zambia has a vast collection of cultures, language dialects and customs. While travelling across the country there are some very basic cultural practices which are applicable across cultures such as food and greetings, Nshima brings different tribes together and establishes some form of cooking culture. In many cases, we see across different tribes, that culturally mainly women are in charge of cooking and serving food. For instance, some greetings are almost so similar that one can still understand, and women will always welcome men with food or traditional drinks. The population is largely made up of over 70 indigenous tribal groups, with seven major local languages spoken Nyanja, Bemba, Lozi, Tonga, Luvale, and Lunda. The rest of the population is made up of Asians, Europeans, and others.

Much of the population is concentrated in the country's most developed areas along the railway line: from Livingstone in the South at the border with Zimbabwe, through Lusaka and until the Copperbelt province up to Kasumbalesa at the border with the Democratic Republic of Congo (DR Congo) and the Chipata area in the East.

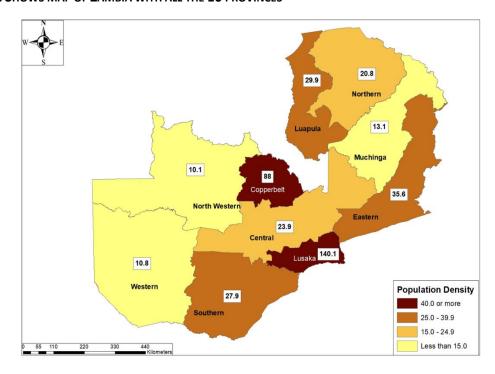


FIGURE 1: SHOWS MAP OF ZAMBIA WITH ALL THE 10 PROVINCES

#### Profile of Zambian foods and dishes 1.2.

Food plays a huge part in the tradition and modern culture in Zambia both in urban and peri-urban areas. Postcolonial, Zambian inhabitants, however, have retained their indigenous and traditional customs and values. Similarly, recent times, there has been a growth in fast food business comprising of international and local cuisines. After Independence in 1964, the government recognized the role culture was to play in the overall development of a new nation and began to explore the question of







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National identity. Despite this, Nshima still plays a very big role in maintaining national identity. It is evident that everywhere you go across the country Nshima is eaten with variation on the relish. The government as of late has been trying to promote diversity on crops that can be used for Nshima such as sorghum, millet, and cassava.

Zambian cuisine is largely based on Nshima, which is a food prepared from pounded white maize (mealie-meal). Nshima plays a very big part in nearly every Zambian meal. Additionally, to Nshima, Zambian cuisine includes various types of stew, cooked vegetables called relish and different types of drinks. Dried meats mainly fish, insects and beef/game are also part of the diet. Nshima is standardized across the country with huge variations in the relish of the 72 tribes. Further to these maize plays is a staple crop in Zambia, and this brings a trend throughout the traditional menu. Samp, Nshima, and *Munkoyo* are all made from maize.

#### FIGURE 2: SHOWS A TYPICAL ZAMBIAN DISH

Nshima the carbohydrate forms the basis of most Zambian people's meals and is mainly eaten during lunch, dinner, and even breakfast. Cooking Nshima is a mandatory skill for every Zambian. During its preparation, the maize meal is mixed with water until it resembles porridge before more maize meal is added to form a semi-solid consistency. Nshima is mainly served with a variety of relishes (tomatoes, onions, groundnuts, chicken, eggplant, etc.), but one of the most authentic and popular combinations is dried fish and cassava (*katapa*) leaves. Apart from Nshima, vegetables play a significant role in the



Zambian menu. You will find traditional vegetables such as sweet potato leaves, pumpkin leaves, cassava leaves, and other wild vegetables in Zambian menu. Further, you will also find okra, beans, kale (rape), cabbage, spinach etc. These vegetables can also be dried or fresh. Cooking vegetables is a skill that complements cooking Nshima. There are different ways in which vegetables are cooked. The most common method is boiling them with tomatoes and onions. The second method is frying them with tomatoes and onions. And the third one is cooking them with pounded peanuts powder to make a vegetable source like pudding called (*fisashi*). The last one is the common traditional methods which









require some inheritance of skills. You will notice that there are also other additives added to either soften the vegetables or make them tastier by improving the texture or lessen the cooking time e.g., adding soda to okra to soften it.

There are also typical traditional foods which are prepared strictly by people who have developed these cooking skills. For instance, the cooking of a local drink called *Munkoyo*, vegetarian polony or sausage (*Chikanda*). Below are some common foods prepared in urban areas of Zambia. These selected dishes symbolize levels of cooking skills that need to be acquired.

FIGURE 3: SHOWS CHIKANDA (ZAMBIAN POLONY)



The chikanda polony is made from chikanda orchids or tubers. These tubers are traditionally found in the grasslands of the Northern part of Zambia. The orchids are grounded and then mixed with pounded groundnuts (peanuts) and water to form a sort of cake mixture which is slow-cooked until it forms a semi-solid jelly texture. Chikanda is eaten as a snack or with Nshima, in urban areas, few people cook chikanda and mainly for resale. Chikanda has become popular in urban areas where it's been sold across the streets of Lusaka by women. Although much for the needed skills to prepare this dish is found in rural areas, women who migrated to urban areas have found cooking Chikanda as lucrative business.

FIGURE 4: SHOWS BOILED OKRA DISH



Okra is mainly cooked with an addition of some soda to make it soft. Tomatoes and onions sometimes fresh chilies are added. Two types of Okra are available but cooked the same way. In the wild okra, only the fresh or dried leaves are cooked either with pounded peanuts or just with soda.









FIGURE 5: SHOWS FISASHI (POUNDED PEANUT DISH)



Ifisashi also known as fisashi a popular dish that is cooked from cassava leaves, pumpkin leaves, Chinese cabbage and also some wild vegetables. This is the most commonly taught dish in both peri and urban areas. There is a transition in the way the food is been prepared and tastes due to different acquisition of skills. Other dishes such as beef, chicken and fish also are mandatory on most Zambian menus depending on the household income levels. Free-range chickens or broiler chickens are very important and require some levels of skills during the preparation such as cutting the pieces and cooking. Kapenta (sardines) also tops the Zambian menus.

Why should people learn to cook could be one of the questions worthy of exploring. Before that, it is worth noting that a Zambian home will have at least 3 meals a day namely breakfast, lunch, and supper. Here is a typical day with foods one is likely to eat in Zambia:

#### **Breakfast**

One would have at least two options for breakfast

- Samp is made from dried corn kernels that have been pounded, prepared by mixing them with boiling water, and salt until the samp softens.
- tea with bread/ sweet potatoes/ fritters (known as Tumbuwa) common breakfast in urban areas.

### Lunch/Dinner

 Nshima with boiled/ fried fresh/dried fish/ boiled beef/ chicken & cassava/pumpkin/sweet potato leaves/ rape etc. Most households will have Nshima during lunch and dinner, and depending on their budget the relish can change twice a day or be maintained.

### **Snacks**

- Roasted cassava with groundnuts (peanuts)
- Vitumbuwa fritters
- Munkoyo traditional malt drink
- Sweet potato chips

### 1.3. Project Goal

Exploring how people living in urban areas of Zambia learn how to cook. The exploration focused on people living in both urban areas and peri-urban areas of Zambia based on the set questions of the









project. The study particularly looked at the dynamics of learning between family members, genders, and age groups (e.g., young to old). MECS is supporting the transition of low-income economies from biomass to the use of modern energy cooking services (i.e., cooking with electricity, gas or renewable energies). It calls for a greater focus on modern energy as the source of clean cooking and has evidenced that cooking with modern energy using energy-efficient appliances can be cost-effective, particularly for urban communities.

### 1.4. Research Objectives

This exploration examined from a cultural context and non-cultural context whether traditions and cooking culture of urban areas has a strong influence on people's acquisition of cooking skills either directly or indirectly through online media. In exploring this, the type of dishes, quantity of food, and energy choices were considered to have a better understanding of cooking ambitions, long-term cooking practices and how this practice is passed on to the next generation. For instance, the practices where women are taught how to cook certain traditional dishes as they get married during a ceremony called *chilanga mulilo*.

To achieve these key objectives, the following specific goals have been addressed:

- 1. Understand how family composition influences an individual's acquisition of cooking skills. Eg a family with no females, no males, a combination of both. At what age do individuals in such a family set-up learn how to cook? What meals do they learn to cook? What energy source is prioritized during the cooking lessons and why?
- 2. Explore how household income determines the acquisition of cooking skills. Is there a disparity in terms of cooking skills between people living in urban and peri-urban areas?
- 3. Understand how online media influences the acquisition of cooking skills among people living in urban and peri-urban areas.
- 4. Gain a deeper understanding of how much influence men's or women's parents have on their children's ability to acquire cooking skills for people living in urban and peri-urban areas. For households with both parents staying together, and households with single parents.
- 5. Explore how formal education influence people to learn how to cook. Are there cooking subjects at the primary, and secondary levels? Are these compulsory subjects or electives? How do both boys and girls respond to taking such subjects in schools? What meals are taught in these subjects?

MECS is working with the hypothesis: "The acquisition of cooking skills has largely moved away from the family/household kitchen space — i.e., from mother to daughter — with younger generations, including men, favouring learning to cook via digital platforms such as YouTube and social media platforms."

### 2. RESEARCH METHODOLOGY

The study used an exploratory research method through depth interviews, case analysis and focus group discussion to understand how people in urban areas of Zambia learn to cook. The research design employed depth interviews, focus group discussion and an online survey tool as the control tool for houses in urban areas of Zambia. Dept interviews were done for comparison with the online tool and further, focus group discussions were employed for different groups and representations in









both urban and peri set-ups. For this study, Lusaka was the focus and through the online questionnaire almost all the other 9 provinces were covered. Peri-urban areas of Lusaka were ideal for this study as they provide the right set-up for people learning to cook in urban areas. Compared to the other urban set-up where most cooking is done by house help such as maids and hired chefs. For people living in peri-urban areas in Zambia due to the low-income levels, cooking is a basic or mandatory skill. The trend in Zambia is that people migrate to peri-urban areas and the children born later move to urban areas, therefore, cooking skills are best assessed in a peri-urban set-up.<sup>1</sup>

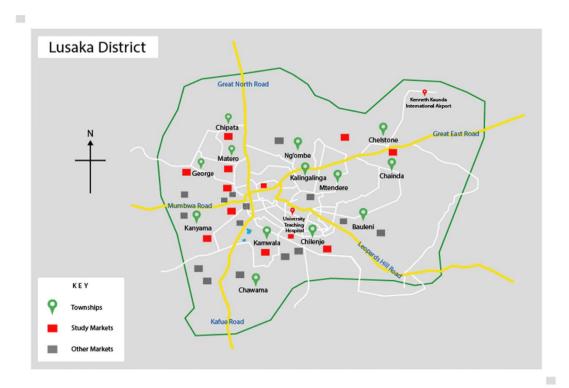


FIGURE 6: SHOWS SOME OF THE RESIDENTIAL AREAS VISITED IN LUSAKA DURING THE RESEARCH

### 2.1. The specific tasks applied:

### 2.1.1. Open-ended interviews

To gain more depth on the nature of this study and take into consideration of the Covid-19 situation, both physical and online interviews were conducted through online questionnaires, phone calls and other cases physical meetings in an outdoor set-up. 10 households were visited during the openended interviews to understand how people learn to cook. Observations were used to understand the kitchen setup, how participants approach the kitchen tools, appliances, fuels and technologies they are engaging with, and the techniques employed. These interviews lasted around 60 minutes each. **Further** to this, an online survey done using Microsoft forms was https://forms.office.com/r/2DMxgJYFeu which yielded 78 responses from across the country with an average completion time of 50 minutes.

<sup>&</sup>lt;sup>1</sup> Ogura M. Rural-urban migration in Zambia and migrant ties to home villages. Dev Econ. 1991 Jun;29(2):145-65. doi: 10.1111/j.1746-1049.1991.tb00204.x. PMID: 12285852.









### 2.1.2. Focus group discussion

- The research targeted **two focus groups discussion of up to 12 women each who cook**, category one those below 35 years and category two those above 35 years old, or mothers and daughters will be in different groups each). To get a detailed review of how people learn to cook in urban areas of Zambia, especially women. The first one comprised 6 women (girls who cook) who left home for university, the second one was 10 women (girls who cook) awaiting to go to university and others still pursuing secondary and primary education and the third one was for 15 women from diverse backgrounds mainly mothers and mentors (*alangizi* these are women teachers who prepare women for marriage).
- One focus group of 12 men who cook The focus group was divided into two 6 men (who cook) left home for university and 6 men (boys who cook) bachelors, some staying with parents, migrated to the city, some of foreign origin regarded as refugees. It further explored how this group learn how to cook, how the cooking responsibilities are divided and the practices. Further, the cooking fuel used, and the choice of food cooked.
- Local food bloggers/vloggers: The target of 10-12 local food bloggers/vloggers. Due to the unavailable of the food bloggers for the focus group discussion, the researcher used an online survey to reach out to the food bloggers https://forms.office.com/r/0jFtpBwuJE. This also involved visiting the African food festival which was held in October to interact one on one with different food bloggers to understand the content, frequency, and audience of the blogs. Several food bloggers e.g., on Facebook like "Cooking with Chinyanta, Fratellis's Dinner, Master Chef Zambia etc."

### 2.1.3. Vignette

- The study developed 6 vignettes mainly a short story of one of the research participants to depict or describe how and where they learnt how to cook. The vignette was diverse, 1 woman below 35 years, 1 male bachelor, 1 male in school or university, 1 female living at a boarding house, 1 person with a disability, 1 person who uses social media to learn to cook.

### 2.2. Participant Profiles

The research focused on peri and urban areas of Zambia, mainly targeting women and men, both individuals and food bloggers. The participants came from diverse backgrounds, and below is a description of the participants who participated in the research.









### FIGURE 7: TAKEN DURING FOCUS GROUP DISCUSSION INTERVIEWS



The focus group for women below the age of 35 years consisted of 10 women born and raised in Chawama Township which is a peri urban. These reside there with both parents, grandparents, and single parents. Most of these women came from a family set-up with more boys and fewer girls. Some of the participants were still in school doing primary level and secondary level. Most of the women participants had completed secondary school and waiting to go to university or college. None of the participants was in formal employment.

For this group of girls cooking is quality centered as they must follow strictly set-up standards in the home set-ups.



The research further went on to explore how cooking skills vary in different setups, especially for girls who have left home to pursue their careers. This group aimed to compare how learning to cook changes as they leave home. In this regard, the researcher held another focus group discussion with 6 female students at the University of Zambia. These participants came from urban areas of Lusaka and were students in the first year and other final years of their studies.











The last focus group comprised of 13 women above the age of 35 mainly mothers from diverse backgrounds. These women have been living in Chawama, Kamwala, Libala and Chalala for more than 10 years. They moved from other parts of the country to Lusaka.



For men, two focus groups discussion were held. To understand how men learn to cook in urban areas we had to take two approaches by interviewing men below the age of 35 years. These men left home for university and have a different set-up from home. This focus group discussion comprised of 6 men between the age of 16 to 23 years. These came from urban areas of Lusaka. The research had to take this approach to interview men who stay with their parents or come from a home where they have mixed family set-ups

such as no girls in the family or mixed arrangements to understand if this set-up allows them to learn to cook. Further, how their leaving home for studies and the set-up at the university allows them to learn to cook. These men were staying at the boarding house and while others were based on campus.



The second group of men comprised 6 men who were above 35 years and others also in their 30s. These men have left home and are living alone as bachelors. The group comprised men who migrated from rural areas to urban areas of Lusaka and others were of refugee status. This was a mixed group of men from peri and urban areas of Lusaka.









For individual households, 10 households came from both peri and urban areas of Lusaka. The households were a mixed set-up with some homes being headed by single parents e.g., women headed with male and female children, male-headed with both male and female children, and others headed by grandparents keeping grandchildren. Some households had people with disability, for instance, some households visited had a female with a visual disability who also took on the responsibility of cooking. Similarly, some households had people with mobility disabilities. In all, through the observations and case analysis, the research was able to capture how these people learn to cook.



Most of the food bloggers came from Lusaka and were between the age of 31 to 35 years and a few were above the age of 35 years. Most of the food bloggers were females. The bloggers had more followers on Facebook.

### 2.3. How Participants Were Recruited

The study conducts a consultative approach and online search to identify participants who are active in the area under consideration. Through the research assistants, participants were identified and provided with the information to establish their interest to join a proposed research study and check on their availability. The recruitment criteria took the following:

- Females aged above 35 years living in the urban area or peri-urban area in Lusaka. Available participants met in Chawama township for a focus group discussion. 15 women showed up, and refreshments and transport were provided to and from the meeting place.
- Similarly, Female aged between the age of 18 to 34 years either living in the peri-urban or urban area of Lusaka were identified and contacted for the availability and interest to participate in the research. Available participants met in Chawama township for a focus group discussion. 12 women showed up, and refreshments and transport were provided to and from the meeting place.
- Female aged between the age of 18 to 34 years who left home for studies were approached at the University of Zambia and checked if they are interested to participate in the research availability. 6 women showed up and refreshment was provided.
- Males aged between the age of 18 to 34 years who left home for studies were approached at the University of Zambia and checked if they are interested to participate in the research availability. 6 men showed up and refreshment was provided.







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- Males living alone and recently (not more than 5 years ago) migrated to the urban or urban areas of Lusaka, mainly from rural areas.
- Food bloggers either female or male with at least 1000 followers either on Facebook or Instagram cooking and showcase local dishes. These were selected during the Africa Food Market Festival that took place in Lusaka. They were approached regarding the research and their availability to participate.
- Individuals who are passionate about cooking or able to demonstrate the ability to cook was identified and recruited for the study. For instance, primary and secondary school teachers who are teaching cooking subjects were identified and interviewed via phone.

### 2.4. Research Questions

- 1. When and how do individuals learn to cook? From whom? Alternatively, from what (social media, YouTube, etc.)?
- 2. If online media is an effective channel, why does it hold such appeal?
- 3. Are there different ways of cooking and learning to cook depending on generation?
- 4. What dishes are taught and mastered? What techniques, tricks, or shortcuts in cooking, do individuals adopt? And are these dishes/techniques mastered at different life stages and why?
- 5. What influences their longer-term cooking practices?
- 6. How do they feel (e.g., consider the emotive elements of cooking how cooking and meal choices feed into perceptions of cultural identity, relationships, etc.) about modern alternatives of cooking/eating?
- 7. What ambitions do they have for their cooking ability? And how are their aspirations formed/influenced?
- 8. What does the future of cooking look like?
- 9. What does modern energy look like to them, and how will they learn to adapt to this transition?

### 2.5. Research constraints

- Physical interviews were a bit of a challenge due to the unavailability of key respondents.
- Due to the nature of the study and the much-needed information, FGD were lengthy and at some point, people started leaving.
- Few men were available to participate as most of them don't cook. Traditional beliefs which inhibit them from cooking. For instance, it's considered a traditional taboo for a man to be in the kitchen as such is reserved for women only. There are few men who cook due to circumstances beyond their control.
- Food bloggers People were not available for Focus group discussion due to different commitments.

### 3. KEY FINDINGS

### 3.1. Contextual analysis of cooking in Zambia









### 3.1.1. When and how do individuals learn to cook? From whom? Alternatively, from what (social media, YouTube, etc.)?

Noting the mixed set-up of Zambian families, individuals learn to cook differently. In the first instance, one would think that people learn to cook through their mothers only which is a common assumption. The research took to understand why individuals learn to cook, how and who/from who do they learn these skills. Below are the findings of how people learn to cook in Zambia.

**Taught:** Zambia even though has 72 tribes, there is still one thing these tribes have in common when it comes to culture. Part of the culture is that individuals are taught how to cook by the woman in the house. The woman of the house can mean the mother, grandmother, aunty, or elder sister depending on the circumstance. Under such, individuals are taught how to cook food following standard procedures e.g. The food cooked should be eaten by the head of the house in that case the man. For instance, women preparing for marriage will undergo cooking lessons on how to prepare certain traditional meals. In the picture we see a woman being taught how to cook Nshima during *chilanga mulilo* which has become a custom for every woman preparing for marriage. These teachings are normally done by the elder women called *alangizi*. Cooking must follow certain standards, especially for traditional dishes.



FIGURE 8: WOMAN BEEN TAUGHT HOW TO COOK NSHIMA

"The children are taught by the mother how to cook on top of the lessons they get from their home economics class at school."

- **Through observation:** This is the most practical way of learning to cook certain meals, especially for men. For instance, men who are shy to be taught how to cook will just observe the way certain meals are prepared. This will then be followed by repeated action of trial and error. Others will say "We call them to watch while we are cooking so that they see and learn." Therefore, we see that individuals learn by watching how others cook. "My mother would ask anyone who doesn't know how to cook to watch as she demonstrates they ask the individual to do a test run." "They watch me cook then later tell them to cook with less or no supervision. Based on the results I decide the amount of supervision needed."
- **Self-taught:** Others teach themselves how to cook after observations and through social media. For instance, individuals who are passionate about cooking will take the extra mile to









experiment with certain recipes. Most common meals which are self-taught are fast foods such as snacks etc. because these are easy to experiment with. For traditional meals, people need to be guided and practice over a long time until approved to prepare for the audience.

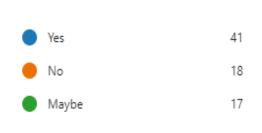
- Cookery books: "having a recipe book and by pay attention to what either the mother or father does when cook a certain type of food." There are several cookery books authored by Zambians which are readily available. For instance, Zambian Foods Cookbook authored by Precious Phiri is has been used by many Zambians who aspire to learn to cook as it focuses on traditional dishes (the Book currently out of the market for review).
- **Stories:** Stories passed from generation to generation on how certain foods are cooked as per tradition are still common ways of learning to cook. For instance, elders will tell stories about how they will cook Nshima from millet and sorghum or how they will cook chicken without spices or cooking oil. Such stories would motivate people to try out these recipes.
- **Online media:** social media and TV have become common channels for people to learn to cook especially for the younger generations. A good example of an online media is zambiankitchen.com which also has a YouTube channel showcasing traditional dishes.

### 3.1.2. Is online media an effective channel?

Figure 9: Shows the responses from the online survey

### 29. Do people in this household use online media to learn to cook?

### More Details





Compared to the older generations, the younger generation is very much on the lookout. We see that for 54% of the respondents, online media holds such an appeal for people to learn to cook in Zambia. For instance, there are a good number of social media pages acting as interactive forums for exchanging recipes, tips on food preparation and ideas on food-related matters. For instance, the Kupikilila Recipe Exchange Group Zambia <a href="https://web.facebook.com/groups/kupikilila/">https://web.facebook.com/groups/kupikilila/</a> has over 148.8 thousand members. In all, there are also several food bloggers offering learning opportunities for people on different recipes.









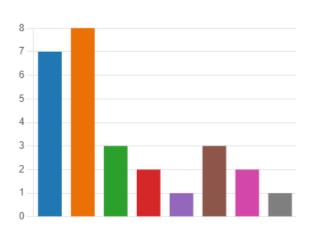


The most popular food blogger who is also a frequent blogger with a lot of followers is "Cooking with Chinyanta" who also participated in our research. Shown in the picture is a step-by-step guide showing people how to cook a local dish. The post has more than 1.8 K reactions and could see the levels of interaction on the post. Notably, most food bloggers are females aged between 30 to 35 years old.

### 4. Media Platform of the blog

#### More Details





Media platforms such as Instagram and Facebook are mainly used by the food bloggers (26%) surveyed. The reason is that the younger generation is very active on these platforms. Notably, there are few men using media to learn to cook. It's also important to note that other media platforms such as TV channels exist such as Mastercook Zambia, Zambia's first reality TV cooking Show airing on QTV every Wednesday at 20:00 CAT.

### 3.1.3. Are there different ways of cooking and learning to cook depending on generation?

- The older generation is fond of preparing traditional dishes such as beans, dry fish and vegetables with peanuts source. Meanwhile, for the younger generation, the focus is on fast foods such as sausage, broiler chicken etc.
- The older generation follows certain traditional practices during cooking, for instance when cooking chicken, the internal parts are cooked separately and saved for the man of the house first. Even though this sounds traditional, the fact that the internal organs of a chicken









required a shorter cooking time compared to the other parts that's why they are cooked separately. As for the younger generation, it was found that cooking is modernized without following certain standards, for instance, when the cooking chicken was observed the younger generation will cook all the chicken parts in one pot at the same time, and this method has been criticized by the older generation.

- The older generation's cooking is prolonged for health reasons, for instance, meat-related foodstuffs are first boiled until they become tender. As for the younger generation, such foodstuffs are accompanied by tenderizers to shorten the cooking period. We see that the older generation focuses more quality of the foods which is been prepared, this can also be noticed in a society where we see low numbers of people with obesity in the generation group. Compared to the younger generation where obesity levels are high. This has been pointed to the way the foods are being prepared.
- In terms of energy preferences, the older generation mainly has fuel preferences for certain types of meals. For instance, when cooking beans which normally take hours to be ready, the older generation will cook it on charcoal or firewood. The reason behind this is both the cost of the fuel and also the belief that food cooked using such fuel is tasty and much better. From our analysis, this food tastes better because it has been slow cooked for a longer period but the cost of cooking it needs to be quantified and compared with other alternative fuels. As for the younger generation, everything has been modernized e.g., Slow cookers, pressure cookers have been utilized for foods that take longer to cook. Similarly, the younger generation prefers to deep fry certain foods kinds of stuff and mainly uses fuels such as electricity and LPG during cooking. If one is to introduce modern cooking techniques, the younger generation should be the target for such instead.

FIGURE 10: LEFT SHOWS COOKING BY THE OLDER GENERATION, RIGHT BY THE YOUNGER GENERATION.



The above pictures were captured during the field visit, the picture with a charcoal brazier was from a woman above the age of 35 years and the one with a pressure cooker was from a woman below the age of 35 years. Despite both living within the same neighbourhood, we see the preference for cooking appliances based on income levels and cooking standards. These two households were asked how they cook their beans, the older generation focus on quality which was tied to the fuel and the younger generation focused on the cooking time which was tied to the cost of cooking. Cooking foods such as beans using fuels like charcoal was deemed to give the food a good tasty because of the slow cooking process involved.







### 3.1.4. And are these dishes/techniques mastered at different life stages and why?

To understand the different dishes that are taught and mastered during cooking, the research first went to understand at what age are the cooking lessons held and the reason why.

• Cooking lessons vary between individual homes depending on the family set-up. For instance, household income can also influence when individuals learn to cook.

"I learnt how to cook at the age of 5 years because I was the only child raised by a single parent. Because my mother was working as a house help so every time, I would knock off from school my mother would have left instructions for me on what to cook and eat."

• In peri-urban areas, boys were found to learn to cook by the age of 10 years and girls by the age of 5 to 7 years. Meanwhile in urban areas where families can afford a house helps girls learnt to cook by 12 years and boys by 14 years. Some boys learnt to cook by the age of 18 years when they left home for university or college where cooking was a requirement or basic survival skill.

### 3.1.5. What dishes are taught and mastered?

Similarly, the research went further to understand what dishes are mastered and taught during cooking in both peri and urban areas of Zambia. The research found the following:

- For men Nshima is the common meal taught because men love eating Nshima. Others were also taught how to cook rice and frying eggs and make potato chips.
- Similarly, men were also taught how to cook certain relish such as beans which just required them to pour water during the entire cooking process.

"Every time my mother would leave home for work, she would have already prepared relish which I would eat for lunch. Therefore, she taught me how to cook Nshima for myself and how to cook rice."

- Sometimes men are taught how to prepare breakfast such as making tea, making egg sandwiches, and toasting.
- As for girls, this was a different scenario because cooking is a responsibility. Even in family setups where the girl child is younger than the male children, the girl was seen to be the one who is responsible for preparing all the meals for the house.

"I left the village when I was 5 years old to come and stay with my cousin in town who had a 1-year-old baby. My cousin taught me how to prepare food for the baby such as porridge and to cook relish."

- Girls are taught how to prepare relish and Nshima for the entire family. Since cooking is viewed as a responsibility for the girl child, they are also expected to adhere to certain cooking standards meaning they must go the extra mile to learn to cook either through friends or online media. That's why we see in the other section of the report, women are food bloggers, and the main user of online media to learn to cook. In Zambia, a woman who knows how to cook receives the most praise.
- Therefore, women are taught how to cook mainly traditional dishes and vegetables, and how to fry or boil certain foods. For dishes such as meat, girls are first taught how to cut the meat and strictly supervised on how to cook them. Simply there is no selection of dishes for women,









as they must master all the dishes compared to men who are only taught the basic dishes. Further to this baking and making pastries, soups and gravies are for a woman.

### 3.1.6. What techniques, tricks, or shortcuts in cooking, do individuals adopt?

Since boys are girls are taught differently how to cook, there are different techniques or tricks which are taught. The research further went on to find out which new techniques people have developed or maybe whether they still cook the same way. Below are summaries of the findings:

- For boys, when they are been taught how to cook, the focus is to help them prepare fast foods that can help them conquer hunger. For instance, a boy is taught how to make toast bread with eggs and make tea with simple tea bags. These techniques are meant for individuals and are not to be applied when cooking for larger groups.
- Under similar circumstances, girls or women are taught to follow certain standards, and phrases like "why are you cooking like a boy" are commonly used to describe poor cooking standards. For instance, when a woman is taught how to make breakfast a lot of things are taught such as the type of bread to use, whether to add butter or not, the type of cups to use etc all these small things are bundled together to make the lesson comprehensive for her. A good example is a woman and man asked to serve people a cut of tea, a man will bring tea in a coffee cup with sugar already added and a woman will bring a tea cup on a tray, with a sugar cup, spoon etc. This example shows how comprehensively each person was taught.
- For women, the traditional practice is that they must prepare foods without adding any spices. For instance, when cooking fish, it's either the fish fried with less cooking oil, and it shouldn't be scrambled. For Nshima, the water must be warmed to a certain temperature to avoid the paste-making crumbs and also the texture of the final Nshima matters.
- During these cooking lessons, the source of energy is also an important aspect, for instance, most cooking lessons targeting women are focused on the use of biomass energy such as charcoal and firewood. As for men the focused energy will be electricity and sometimes LPG. The reason behind this goes with the type of food which are been taught to the different target groups. For instance, a woman been taught how to bake bread or bans will use the traditional ovens which use firewood and while boys will use the electric oven. Even though things have changed but this has been the circumstance.

Further to the above summaries, the research takes note of the following cooking techniques, especially for the younger generation have adopted.

- To reduce the cooking period for foods like beans, tenderizers such as soda has been added to beans. Also, soak the beans overnight and add a bit of cooking oil before cooking them.
- Adding lemon or meat tenderizer to beef has become common practice during cooking.

### 3.1.7. What influences their longer-term cooking practices?

To understand the longer-term cooking practices, the research went further to find out if new techniques which have been adopted will stand the test of time or maybe people will still adhere to traditional ways of cooking with traditional fuels or techniques which also involve traditional dishes. Further, how these new cooking techniques affect meal choices and cultural identity.



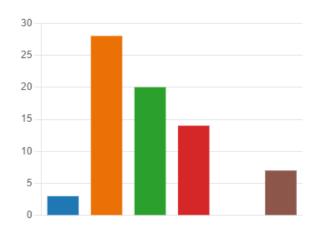




### FIGURE 11: SHOWS IF PEOPLE HAVE MAINTAINED TRADITIONAL COOKING METHODS

56. How often do you prepare these traditional dishes?





From the results above we see that people in urban areas of Zambia still maintain the traditional ways of cooking. At least more than 50% of the people still cook traditional dishes weekly. What this means is more energy and higher energy costs because traditional dishes and cooking methods use a lot of energy. That's the reason why more than 75% of the country's population still depends on biomass energy. For instance, urban and peri-urban areas are hot spots for the charcoal trade, charcoal is produced in rural areas and heavily consumed in urban areas of Zambia. Further, such a trend means the efforts to combat climate change and fight forest degradation have become challenging. Compared to when these traditional dishes are prepared on modern technology such as hot plates and LPG stoves, the costs associated with operation and maintenance are seemingly visible to the users. Similarly, the costs associated with the use of biomass energy seem invisible to the users, charcoal, for instance, has a lot of hidden social, economic, and environmental costs along the value chain which manifest differently.

In support of the above statements, below are the responses why people still opt for traditional cooking methods:

- Traditional cooking techniques help us to choose a variety of dishes to be prepared. These traditional methods have been passed on from generation to generation thus easier to adopt.
- Old cooking techniques are deemed cheap, easy, and healthier. For instance, higher levels of obesity in the country have been associated with modern cooking methods such as baking, grilling and deep-frying foods. While traditional cooking methods will only focus on boiling food kinds of stuff to get rid of cholesterol fats. This mainly separates the fats which are skimmed later out of the pot. Similarly, people believe that meat has to be over cooked through boiling to kill internal parasites such as tapeworms especially in pork.
- New cooking techniques are not in line with our culture. For instance, some people believe that
  there should be a separate pot for each meal e.g. Some cultures have some strong religious
  beliefs on how food should be prepared for instance chickens cannot be fried but should be
  completely boiled to get rid of any blood.









### FIGURE 12: SHOWS THE DISHES PROMOTED BY FOOD BLOGGERS IN ZAMBIA

### 11. What dishes do you blog?

### More Details





Similarly, the food bloggers were interviewed regarding the type of dishes they are promoting. We see from the results above that despite promoting traditional dishes (48%), there is also a focus on international (38%) and continental (19%) dishes. Below is a summary of some responses regarding the content of the blogs:

- Our social media content is mostly to do with the recipes on the show, the different chefs that take part in the competition etc.
- I mostly do local traditional dishes because my grandma and mother specialized in them. It ranges from vegetables, poultry, and fish.
- Ranging from pizza to burgers to comfort foods

Figure 13: shows the responses if people have changed their cooking techniques.

### 37. Have you changed your cooking techniques?

### More Details





We see from the results above that majority (51%) people in urban areas of Zambia have not changed their cooking techniques. This shows the emotive elements of cooking - how cooking and meal choices feed into perceptions of cultural identity, relationships, etc) about modern alternatives of cooking/eating. To further illustrate new cooking techniques and why some people have adopted them, we summarize the responses as follows:

- New cooking techniques help reduce the cooking time and thus serve on the cost of energy.









"During cooking of Nshima, we no longer have to boil water on the stove, but we use an electric kettle which is faster. Thus, we spend 15 minutes instead of 30 minutes."

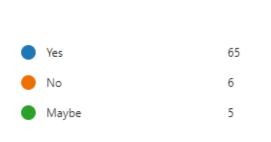
- Modern cooking techniques are healthy, e.g., nutrients are maintained compared to traditional methods where food is overcooked. For instance, vegetables are boiled till they change color to brown, meanwhile modern cooking maintains the green color of the vegetables thus deemed healthy.
- New cooking techniques are faster, so it is easier to choose a dish to prepare. These cooking methods require little attention as much of the cooking is automated and simplified. For instance, cooking beans using a pressure cooker compared to using an ordinary source pan and charcoal brazier.

### 3.1.8. What does modern energy look like to them, and how will they learn to adapt to this transition?

To further supplement the emotive elements of cooking, the research also went further to explore what modern energy looks like to the urban dwellers of Zambia. To understand this the research explored if energy preference is influenced by food choice.

### FIGURE 14: SHOWS THE RESPONSES REGARDING ENERGY PREFERENCES

### 32. Are there preferences of energy when cooking different food?



More Details



We see from the results above (86%) that there are preferences for energy when cooking different foods. Some of the reasons regarding energy preferences range from individual perceptions to cultural perspectives. Below is a summary of some of the responses:

- Because some food takes a long to cook that's why we prefer charcoal to electricity and some food tastes better when cooked on the brazier such as beans, cow hooves, offal, dried fish etc.
- Beans for example taste better if we cook them on the brazier. Most people prefer cooking beans using a brazier (Mbaula) because they assume it's cheaper than using electricity as beans take a long to cook.
- Preserving of electricity: Some foods take longer to cook, hence consuming more energy.
- Some meals take a long time to boil to save energy charcoal is an alternative.
- Yes, if we are cooking hard meals we use super moto pellets stove because it cooks fast.
- Some foods like okra spill over when cooking so they are better cooked on a charcoal brazier.









- Some food needs very low heat to cook perfectly so charcoal may be used in this instance.
- Some foods need to be on fire for a long time so for such, it's better to use a gas stove or a brazier to save power.
- LPG stoves or Gas stoves are faster and more convenient as they release a lot of heat necessary for cooking different foods, especially the ones that take a long to cook. And these are easier to regulate the heat.
- Some foods require to be cooked in a certain way, for example, chikanda is best cooked on a brazier.
- Food that takes a long to cook is prepared using a charcoal stove while the fast-cooking food is prepared using gas and electricity.
- Prefer electricity, it's fast, clean, convenient and has a temperature control knob, unlike the brazier.
- Modern cooking technologies are tedious when cooking traditional foods e.g., Nshima.

### FIGURE 15: SHOWS THE ALTERNATIVE ENERGY SOURCES PEOPLE ARE CONSIDERING

34. Are you considering switching to another source of energy for cooking?

24

14



Maybe

More Details



To understand the perception towards modern energy cooking and adaptation to the transition. The research was surveyed to get responses from the people in urban areas of Zambia. It is important to note that charcoal usage accounts for almost half (44%) of urban households, followed by a mix of charcoal and electricity representing 38%, and lastly electricity only accounts for 17% of urban households.<sup>2</sup> For instance using the energy ladder, the assumption of fuel switching by a household, whereby cleaner fuels displace less clean fuels as household income increases and welfare improves. However, this is not always the case because households use cooking fuels in complex combinations. In urban Zambia, less than 1% of households use gas, kerosene, and other fuels.<sup>3</sup> Below are summaries of the responses from the survey:

- Gas because it is faster, it's cheaper, is efficient hence no reason to change. This would save more trees. Due to power outages- Gas is because we experience a lot of power outages.

<sup>&</sup>lt;sup>3</sup> Brian P. Mulenga, Solomon T. Tembo & Robert B. Richardson (2019) Electricity access and charcoal consumption among urban households in Zambia, Development Southern Africa, 36:5, 585-599, DOI: 10.1080/0376835X.2018.1517036







<sup>&</sup>lt;sup>2</sup> Solomon T. Tembo, Brian P. Mulenga, and Nicholas Sitko. (2015). Cooking Fuel Choice in Urban Zambia: Implications on Forest Cover. Indaba Agricultural Policy Research Institute (IAPRI) Lusaka, Zambia



Further gas is safer to use than charcoal. Similarly, gas is faster in preparing meals and cheaper than electricity.

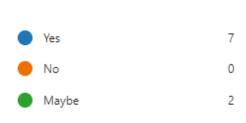
- Charcoal-It's cheaper, especially with the current escalating prices for electricity and gas.
- Solar because it is renewable and cheaper. Solar cookers are convenient nowadays, especially in Zambia.
- No issues with electricity will continue cooking with electricity as it is clean.
- Electricity from the grid has become expensive. Gas because it's a clean source of energy.
- Using an electric stove is more convenient as it is done in the house, unlike the brazier which uses charcoal and pollutes the atmosphere. Electricity is the best cause it's fast.
- A combination of an Electric stove and charcoal brazier is enough.
- Charcoal, sometimes there's load shading especially rainy season. So, the power goes off and we can switch to using charcoal which is a cheaper source of energy, to get our meals done.
- Deep fryer and pressure cookers using electricity makes cooking easier.

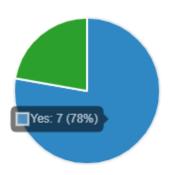
To further illustrate the outlook for modern cooking, the research conducted another survey with food bloggers who are active in Zambia. The focus question was to understand if these bloggers promote modern cooking techniques. Below are the findings of the survey.

### FIGURE 16: SHOW FOOD BLOGGERS PROMOTING MODERN COOKING TECHNIQUES

### 30. Do your blogs promote modern cooking techniques?

### More Details





From the results of the survey above we see that most food bloggers (78%) influence the transition to clean cooking techniques. Below are summaries of the responses:

- We are promoting the Electric Pressure Cooker which is very energy efficient. We have run several blogs showcasing the use of these pressure cookers on traditional local dishes.
- We are sometimes paid to promote new appliances and ingredients by different companies who are trying to build up their market in Zambia.
- Showcasing energy-efficient cooking technologies such as pellet stoves, Grilling, and modern smoking techniques.
- Recently been promoting air frying technology for different foods in Zambia.
- Cooking a healthy balanced diet and have promoted food hygiene.
- Promoting the use of LPG under the Alternative to Charcoal Project in Zambia. We run several blogs about local dishes and promote and sensitize the use of LPG as an alternative to charcoal.







### www.mecs.org.uk

How to grill and baked meals using solar cookers produced by Rosa Solar Cookers.

### FIGURE 17: SHOWS ACCESS TO RUNNING WATER IN THE KITCHEN.

14. Does the cooking space have two or more cooking appliances?

### More Details





Similarly, to understand the potential for transition to modern clean cooking. The research explored and observed the kitchen set-up to see if there is space and possibilities for modern cooking. We see from the pictures below that most kitchens are already congested and if additional appliances were to be added they will have some limitations.

FIGURE 18: SHOWS KITCHEN SET-UP IN PERI-URBAN HOUSEHOLDS.





Despite the above scenario, there is potential for cooking appliances such as electric pressure cookers which need less space, especially for households in peri-urban areas. It is also important to note that most Zambian households have hybrid cooking arrangements where cooking is done both inside and outside the house. Refer below to the findings:







### Cooking Services

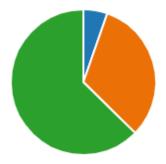
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FIGURE 19: SHOWS THE COOKING ARRANGEMENTS FOR URBAN HOUSEHOLDS IN ZAMBIA

### 12. Where is the cooking being done?

### More Details

•	Outside	4
•	Inside the house	24
•	Both	47



From the above results, we see that majority (63%) households cook both inside and outside their houses. The main reason behind these is the fuel choices that are been used at that particular moment and also the weather conditions. For instance, modern appliances using electricity are mainly used indoors and traditional ones using charcoal or other biomass are used outdoors. Charcoal braziers are mainly used outdoors for safety reasons because charcoal combustion releases a lot of carbon monoxide which can have severe consequences. But there are times when charcoal braziers are used indoors, especially during the rainy season.



Even though most people have been using charcoal braziers indoors, there have been several incidents such as infernal and suffocations.







### FIGURE 20: SHOWS THE RESULTS OF PEOPLE USING MULTIPLE COOKING APPLIANCES

15. If Yes to the previous answer. Are these cooking appliances used interchangeably during cooking time?

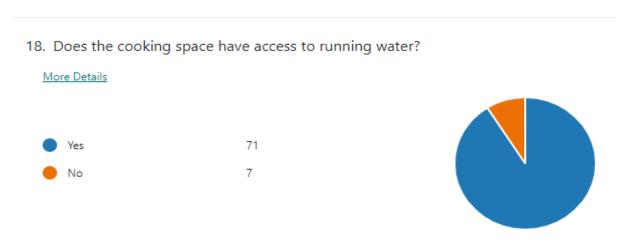


Considering the migration or transition to modern cooking technologies, the people in urban households already provide that opportunity. From the results above, we see that many people in urban areas of Zambia use at least two cooking appliances at a go.

"When I reach home from work in the evening, I have a huge responsibility to prepare food for the entire household. Therefore, you will find I am cooking vegetables on a hot plate, chicken in the electric frying pan and Nshima on the charcoal brazier. This way I will be done with the cooking on time."

From the above response, we see the justification of convenience to be the main driver of why people are willing to migrate to modern cooking technology. Taking this into consideration, there is a higher potential for people in urban areas to transition to modern cooking.

FIGURE 21: SHOWS ACCESS TO RUNNING WATER IN THE KITCHEN



Similarly, the research took to understand if the cooking spaces have running water which signifies the potential for integrating modern cooking services. As stated in the earlier section, most households in Zambia cook both indoors and outdoors, for indoor cooking access to running water reduces the amount of time wasted moving around to access the water.







### 3.1.9. What ambitions do they have for their cooking ability? And how are their aspirations formed/influenced?

To understand this, the research took to understand what motivates people to cook, what influences their cooking abilities and how they see their cooking in the coming years. First, the research explored if people take cooking lessons. Below are the findings.

### FIGURE 22: SHOWS IF PEOPLE TAKE COOKING LESSONS

More Details

### 49. Have you ever taken cooking lessons

# Yes No Maybe 3



We see that more than 60% of the people in urban areas of Zambia undertake cooking lessons. The only time people would take such lessons is when they want to learn new recipes e.g., for those in the business of baking cakes. Similarly, people would only take cooking lessons when resources are available. Further, cooking skills are advanced with time, below is a short storyline of one's aspirations for cooking:

"I learnt how to cook through observations when my mother would ask me to help her set up the tables. One day I was invited to my friend's birthday party, and I was asked to help in preparing the food. From that day that's how I found myself cooking for large events, right now I want to start offering cooking lessons for people who would want to start a catering business."

Similarly, we see that people's aspirations to cook are mainly formed because of self-interest. For instance, for some people who leave home for university cooking becomes a means of survival and with time they develop cooking skills which become admirable to others. For other circumstances force them to learn to cook especially for females when they have to get married, they have no option but to undergo cooking lessons on how to prepare traditional meals.











For instance, in the picture, we see a woman whose aspirations to cook might be influenced by the fact that she is getting married and will have to prepare meals for her husband. Therefore, we also see that culture and society have a very big influence on people's aspirations to cook.

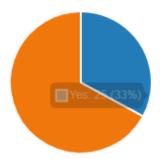
To further explore how people's aspirations are formed, the research went on to see if people order food online. In Zambia currently, there has been a boom in online stores that deliver food to the doorsteps. When participants were asked whether they order food online, the food was referred here in the ordinary Zambian meals which are eaten during lunch and dinner.

FIGURE 23: SHOWS THE NUMBER OF PEOPLE ORDERING FOOD ONLINE

44. Do you buy food from online stores eg Ulendo eats?

### More Details





We see from the results that people would prefer to cook their food at home. This is also in line with some cultural perspectives that women are supposed to cook for their families. A few who order food online also stated that few restaurants provide home delivery for ordinary Zambian meals. Below are some of the responses captured why people don't buy foods online:

- Because we can cook for ourselves.
- The services are not available in the abovementioned residence.
- I prefer home-cooked meals.
- It's cheaper to cook your food in the long run that ordering fast food.

To this extent, the research went further to explore if households have their meals outside their homes e.g., restaurants.







### FIGURE 24: SHOWS IF URBAN HOUSEHOLDS HAVE MEALS AT THE RESTAURANT

46. Do people in this household have meals outside this home eg restaurants?



We see from the results above that in many households in urban areas of Zambia there is a trend of people having their ordinary Zambian meals from restaurants. Since we have a population of people in formal employment, the majority (86%) of them outsource their lunch meals and sometimes breakfast meals from restaurants within their proximity. Most of these restaurants use a lot of charcoal when preparing these meals. Most of the meals prepared are traditional and there is an energy intensity mainly from grilling, roasting and smoking meats at these places.

Similarly, the research also captured men who were bachelors who have most of their meals from restaurants because they find it hard to cook at home. This even though seems temporary, is something interesting to note that people who live alone rarely cook. Others stated that cooking is normally done maybe over the weekends and during weekdays they outsource meals from the restaurant where they eat as a group with colleagues.

Below are summaries of individual responses from the survey:

- It's convenient, sometimes when there is no power.
- Sometimes it's convenient and it helps us to reduce the energy spent in our homes.
- When the cook is away on a work trip, studying or busy and just trying out new places.
- To eat something cooked differently.
- It's part of our tradition to eat outside occasionally.
- When out at work it is easier to share costs with friends and have quick fast food sometimes.

### 3.1.10. What does the future of cooking look like?

To understand the future of cooking in Zambia, it is important to understand consumer behaviour toward cooking appliances and how this influences them to transition to modern cooking services. As mentioned in other sections, most Zambians still use biomass mainly charcoal as a source of energy for cooking and this means the focus of technology is still on traditional biomass conversion stoves such as braziers. The transition to modern cooking services might be met with a few challenges such as the cost of the technology, the costs of repairing the equipment and the salvage value of the products.









FIGURE 25: SHOWS THE REPAIR OF COOKING APPLIANCES IN ZAMBIA







### During the survey, the following items were noted:

- There are a variety of brands of cooking appliances in the Zambian market mainly outsourced from Asia. Most of this use electricity and a few have standard energy ratings. What determines people to buy these appliances is mainly the price and convenience of usage. During the survey, it was noted that most electrical cooking appliances have a short warranty and lifespan. For instance, hot plates double and single were found to be commonly used because the cost of repairing them was low. Despite this people in Zambia will continue using charcoal based on several reasons that need to be captured especially consumer behaviour.
- Some households' surveys were found to be housing broken-down electrical cooking appliances. For instance, the cost of replacing the solid plates for a four plates cooker was almost the price of acquiring a new cooking appliance of the same brand. When asked what they think about modern cooking services, most of the consumers expressed concerns on the issue of electronic waste resulting from low standards products on the market. Similarly, there are a few scrap metal dealers who were trading the metal parts at a small fee. Currently there are also a few e-waste recyclers who might be interesting to understand the material component from the electrical cooking appliances.







### MECS www.mecs.org.uk

Further, during observations, the following cooking appliances were noticed in the cooking spaces.

- Electric kettles mainly used for heat water as they save on the cost of energy. As stated earlier, some households have stopped heating water directly in the pots but instead use electric kettles.
- Microwave despite a few people in Zambia who eat food that remained, there are some households with microwaves for instant cooking and warming of foods.

Therefore, if the cost of electricity keeps going up, the usage of charcoal for cooking will also keep going up and thus contributing to climate change. People in Zambia will continues opting for energy which appears cheaper even though the other costs are hidden.

### 3.2. Further Insights

The study also captured people living with disabilities (PWD) in the urban areas of Zambia. In many urban areas, there are instances where PWD have people who help them with cooking. This depends on household income where house helps are hired or dependents help with the cooking. For most PWD safety of the energy source was a big concern and thus limited what they can cook. For instance, most PWD would prefer to cook outdoors where they can receive help in case of incidents. Therefore, charcoal was the main source of energy as was able to be used outdoors. Similarly, the design of the kitchen and cooking appliances are not inclusive of PWD, therefore, these people are always left out during cooking or programmes that deal with modern cooking. One thing that is been forgotten is that PWD mainly uses charcoal for safety reasons, thus also bringing an opportunity for modern cooking services in their space.

### 4. CONCLUSION AND RECOMMENDATIONS

### 4.1. Conclusion

This exploration has given an overview of the Zambian context with key information on how people learn to cook in urban areas. It showed the dynamics of learning between family members, genders, and age groups (e.g., young to old). And how the Zambia culture influences the acquisition of cooking skills across age groups and genders.

The research found huge variations in Kitchen set-ups across households and different settings affecting people how they learn to cook. Family set-up and composition had a strong influence on the acquisition of cooking skills with families headed by females having a positive influence than those headed by males. Mostly female heads were the ones responsible for teaching people how to cook especially mothers.

For women it is a requirement to learn how to cook either an early age or later on in life when preparing for marriage. Interesting, women bear the responsibility of learning to cook during marriage preparations and for men such lessons were not included. Even in home set-ups, boys were excluded from cooking duties as these were perceived to be feminine.

Online media was common tool for the younger generation who want to learn new cuisines. There are several food bloggers mainly focusing on traditional dishes. Seemingly, most views and reactions







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were on traditional Zambia cuisines, this has been a reason why most food bloggers are females as these can cook such dishes. Although, Online media is gaining relevance in helping people acquire cooking skills although it comes with its challenges as some recipes are not in line with culture.

Older generations were fond of cooking traditional cuisines with traditional fuels such as charcoal and firewood. Younger generation focused on fast foods or modern dishes usings modern cooking technologies such as pressure cookers, deep fryers etc.

Most common dish mastered at early stage is mainly Nshima mainly at the age of 5 to 7 years for girls and 12 to 14 years for boys. At later stage in life mainly for ladies when they reach the age of 10 years are taught how to cook relish and when preparing for marriage, they learn how to cook tradition dishes.

The culture was found to have a strong influence on people learning to cook in urban areas, where boys were excluded from cooking duties. Despite this, boys or men were responsible for the maintenance of cooking appliances. For instance, connecting the stove or attending to all technical issues was the responsibility of males in the household.

Similarly, the education system has a curriculum on food and nutrition where cooking is part of the learning items. Unfortunately, cooking subjects are not compulsory, for instance, due to cultural perceptions some parents withdrew their male children from taking cooking subjects as they saw less value in such subjects.

There were preferences of energy when cooking different foods, with a stronger preference for biomass such as charcoal when cooking foods that take long to cook for instance beans. Similarly, majority of the people were considering to switching to another source of energy for cooking such as gas due to it affordability.

Through field visits, the study observed that most kitchens in urban areas of Zambia can accommodate modern cooking services with some limitation for space. But potential for electric pressure cooking which takes less space. Further, majority of the people were already using multiple appliances for cooking.

Long term cooking ambitions were mainly influenced by culture of cooking where most people will only take cooking lessons for non-local foods and mainly for business. For men long term ambitions were mainly centered towards marrying a woman who knows how to cook traditional meals.

The future of cooking will still be dominated by biomass due to the cost of modern cooking technologies and end life repair of such cooking appliances. Further, rising electricity prices and power cuts are the main barriers to modern cooking technologies.

Lastly, PWD was found to be the most minority group which is been left out of issues to clean cooking thus encouraging such people to continue depending on charcoal and firewood. Modern cooking services have not been inclusive for PWD from both a policy and technological perspective.







### 4.2. Recommendations

Based on the dynamics of learning to cook in the urban areas of Zambia. The study makes the following recommendations:

- Since cooking lessons are mainly done by the mothers or woman of the house, it is recommended that modern cooking services should be channeled towards these. For instance, since these are the ones who are mainly exposed to indoor pollution or who bear the burden on energy poverty.
- Since most men are not active when it comes to cooking, modern cooking services such as
  pressure cookers could eliminate these barriers especially for men who migrate to the city.
  There is need to assess how both females and males respond to modern cooking techniques
  or services in order for MECS to be able to implement such programmes successfully in
  Zambia.
- Online media is already a powerful tool for people learning to cook. The study recommends
  that food bloggers are engaged on modern cooking services as they have a wider audience.
  MECS can schedule a programme with these food bloggers on how they could promote
  cooking of traditional foods using such.
- The study recommends that the older generations trained on modern cooking techniques through different levels of engagement to capture the barrier to transition and the opportunities that arise for MECS.
- Since the most common dish mastered in Nshima, there is need to explore how modern cooking techniques can be encouraged. Under MECS people in urban areas could be trained on new techniques which have been discovered to reduce on the energy costs related to prolonged time for cooking Nshima.
- Since culture has a strong influence on people learning to cook in urban areas were boys or men were responsible for the maintenance of cooking appliances. Under modern cooking services this gender can be trained on how they can offer accessible and affordable maintenance for modern cooking technologies.
- Education was found to create opportunities for modern cooking services. There is need to engage both the private and public sector on the curriculum to make it inclusive modern cooking technologies and for boys to participate.
- Further the study recommends that the future of cooking should be inclusive of modern cooking through promotion of modern cooking technologies and end life repair of such cooking appliances should be considered and provide information to the users.
- Lastly, the study recommends that PWD to be included in modern cooking programmes since this minority group have continued to depend on charcoal and firewood. Therefore, such programmes should be inclusive for PWD from both a policy and technological perspective.

### 4.3. Further Research

The research makes the following gaps and room for a detailed outlook in the space of modern cooking services in Zambia.

- The study notes the lack of inclusion of PWD in modern cooking programmes. Kitchen design and cooking appliances on the market do not accommodate this group of people. It's









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important to explore this further to understand the cooking practices and how modern cooking technologies could be included in their space, especially for low-income households. This study will mainly work with the disability society of Zambia through a series of workshops to understand levels of inclusion for PWD in Zambia. The notes that disability is at different levels and different categories will be assessed and recommendations will be made for each.

- As much as modern cooking technologies have been encouraged, there is need to have a detailed or explore the repair, maintenance, and end-life of these technologies on the Zambia market. This will also help the government to set policies for minimum standards and quality for these products and also policies such as tax relief to make them affordable.
- Similarly, Zambia currently several projects are promoting LPG for cooking. The global price fluctuations have been a barrier for transition to LPG from biomass. A study exploring the longer term prices for LPG at national level. A study exploring the longer-term prices for LPG at national levels in conjunction with the Ministry of Energy will provide room for transition to modern cooking services.









### **APPENDIX**

### Story 1: Chilanga Mulilo – How women are taught to cook in Zambia



Exildah is a 26-year-old living in the periurban area of Lusaka known as Kalingalinga. She is a banker by profession and the time has come to leave her parents. Exildah is getting married to Ebenezer who is living in the urban area of Lusaka known as Chalala. Tradionally since she comes from the Nothern part of Zambia she has to do *Chilanga Muliolo*.



During *Chilanga Mulilo* she is taught how to prepare different dishes which are eaten in her tribe, and these have to be presented to her husband to be. A traditional teacher called *Alangizi* is appointed to teach her how to prepare these dishes traditionally and how to present them to her husband and his family.



On the actual day of the *Chilanga Mulilo* she is tasked to cook a huge Nshima and other relishes such as chicken which will be presented to her husband and his family. All these meals will be prepared either using charcoal or firewood, there are few instances that electricity or LPG has been used.











On the actual day of the *Chilanga Mulilo* she will remain behind and her family and relatives together with her matron (alangizi) will take the dishes prepared to her husband to be. The procession is always long as seen in the picture different dishes in different pots will be carried on the heads by several people. These are welcomed by other women from the groom side who shower some money on them.

The foods basically include so many different vegetables like *Lumanda*, sweet potatoes cooked in so many ways, chicken, nshima etc.





Once the dishes are at the groom's place, the matron will unwrap the dishes and present them to the groom one by one. For each dish that is unwrapped, the groom has to put some money to show a token of appreciation.

"During the chilanga mulilo, I leant quite a lot of things especially that cooking is not all about food but also presentation of the foods. Despites having learnt how to cook when I was 7 years old, now after the chilanga mulilo I have learnt quite a lot that will help me manage my home."









### Story 2: How I learnt how to cook via online media

"At the onset of Covid-19 pandemic, I was forced to enrol in an online cake baking training so that I can have a side hustle to help me survive the harsh economic challenges that came about."



Cynthia Muleya is a teacher by professional who was teaching at a private school in Lusaka before the year 2020. She is 27 years old and responsible for her 3 siblings who were at college and high school.

Even though she is a teacher for Geography, she is also enthusiastic about cooking and baking. "I used to watch British Baking Competition on DSTV Food network channel, even though some recipes were complicated." In 2020 when the Covid-19 pandemic

became serious, schools were closed, and we had to stay home. Because I was teaching at a private school which was also depending on the revenues from the pupils, the school stopped paying us our monthly salaries because it went bankruptcy. In order to survive I started baking cupcakes and scones so that I can make some money for settling bills and meet the daily needs.

Cynthia didn't have a very good baking oven; she was using her sister's and neighbours' ovens where she would pay them something towards the cost of electricity. Later, Cynthia went on an enrolled for professional cake baking training which she had to attend part of the classes online because of Covid-19 restrictions and as of today she is a professional baker who makes at ZMW 5000 a month with a weekly income of around ZMW 1000 just from baking cakes.



Cynthia's has used online media to learn how to bake and cooking professional dishes. This skill she has learned has made her survive the harsh economic conditions brought about by the Covid-19 pandemic. Besides this she has gone back to her teaching career where she also teachers' pupils how to cook and bake.









### Story 3: Samson left home for university

"While at home I never used to cook because I had sisters, and we had a house-help. But when I moved to the University of Zambia, in the early months I would buy food from the local canteen, but I started observing how my roommates were cooking and it became expensive for me to be buying food. Because of this, I learnt how to cook Nshima with eggs by then I was almost 17 years old."



Samson is a medical student at the University of Zambia and resides from the Copperbelt province of Zambia. He is the only male child in a family 5. He is 20 years old and the 3<sup>rd</sup> in his family.

While at home Samson never used to cook any meals as his was blessed with sisters who would do almost all the cooking chores. But a few years ago, he was accepted at the University of Zambia to come and study a Bachelors in Medicine which is a 6 years fulltime programme. Unfortunately, the university only provides self-catering to all students, and this is done in a shared hostel room. Samson has 3 roommates and they had to all put money to get a two plates cooker. "The first few days were tough for me because I didn't know where to start from when it comes to cooking. Some of my roommates were good at cooking Nshima because they learnt in before they came to the university. My friends taught me the basics on how to cook eggs while they would cook Nshima. At times we would exchange chores, where I would clean the dishes and they would cook Nshima and relish or I would buy the food stuffs and they would cook, and we eat together."

Fortunately, enough Samson can cook some meals while at school and even when he gets home during the school breaks. The case for Samson is for boys who learn to cook due to circumstances. Samson also mentioned that while at home he is the one responsible repairing the stove because he has learnt some of these skills from his roommates who were studying electrical engineering.

For the younger generation learning to cook is mainly self-interest compared to the older generation where cooking was mandatory. Traditionally the older generation men were not allowed in the kitchen space, if cooking was involved it was mainly roasting meat which was taught as early as 12 years during the initiation ceremony. For women from the older generation cooking was done through observations and assisting the mothers in the kitchen and this would start as early as 4 years because girls would spend more time with their mothers.









Story 4: Veronica Cooking at the boarding house





Veronica is another student at the University of Zambia who resides in a boarding house. She has always schooled away from home since junior secondary school. "While in primary school we learnt home economics and at home my mother would ask me to help her in the kitchen since I was 6 years old. When Veronica left home to go and do her junior secondary education at a boarding school, she found that the school had a canteen which was serving them food. She also opted for subjects like Agriculture science instead of Creative arts which had a cooking component. "I dropped cooking subjects at secondary school level because I wanted to take agricultural science which was in line with my career as seen today, I am studying veterinary medicine at the University of Zambia."

Since Veronica couldn't be accommodated in school, she is staying at a boarding house where they have self-catering services. My parents helped me select a boarding house which was neat and had access to running water for hygiene purposes and to reduce the time of me going to fetch water. During exam period, my parents would send someone hired to come and help me prepare my meals, because I rarely eat from the restaurants for health reasons. Sometimes, food from home is delivered to my boarding house. "I have come to enjoy cooking here at the boarding house my housemates normally teach me new recipes especially new techniques on how to prepare breakfast."









### Story 5: Cooking as a Bachelor: Cooking techniques

"I have been working as a bricklayer for the past 5 years. This involves me leaving my family home for sometimes more than a month. During this work trips, we must cook onsite for ourselves."



Kabole is a bricklayer by professional who left Eastern province of Zambia to come to Lusaka to look for greener pastures. He came to Lusaka 2 years ago and left his family home. Therefore, he had to learn how to cook for himself. According to Kabole "while in Eastern province, my wife would do most of the cooking and sometimes my daughters would help her. As man of the house, I was never in any position going to do some cooking as it is considered a taboo in our culture."

Now that Kabole is by himself, he must eat at least twice a day since he works is tedious. While at work he eats with his fellow bricklayers who have taught him some new techniques such as cooking vegetables and meat together in the same pot at the same time. "The new cooking techniques are considered for men because the food that is cooked is not to the standard that can be eaten by women. For instance, I learn how to cook foods like soya pieces just soaking them in water to soften them and just boil them with oil." According to Kabole, he only uses charcoal as main source of energy, he bought himself a small charcoal brazier. The difference between Kabole's cooking practice is that the food he cooks now cannot be cooked for his family as the Nshima is always hard and he eats Nshima at least twice a day. Kabole cannot afford to buy hot plate and sees no need to buy one since he is never home most of the time. He also mentions that good quality stoves or hot plates are costly while the sub standards one which have flooded the market are cheap and not durable.









### **Story 6: Cooking with Disability**

Jane Mulenga lives in Chawama township which is a peri-urban area of Lusaka. She is living with a visual disability for almost her entire lifetime. During the household survey of how people learn to cook in urban areas of Zambia, the research team captured her.

Jane Mulenga is a mother of two and she is widowed from a husband who also had visual disability. Her children spend most of their time at school and going to the market to sell vegetables. This means Jane Mulenga needs to spend much of her time at home and she must prepare at least 2 meals a day. Jane Mulenga learnt how to cook at the age of 15 years old and she also advanced her cooking when she got married because she had to cook for her husband and children too. Currently, Jane also teaches her children how to cook either by having them help her during cooking or by giving them instructions.

FIGURE 26: SHOWS PWD VISUAL COOKING OUTSIDE









When it comes to cooking fuel choices, she uses charcoal as the main source of energy for cooking. She prefers charcoal for safety reasons. Here is what she says:

"I spend long hours cooking because I must take into consideration a lot of factors such as safety. We have a hot plate cooker in the house, but I have stopped using it because I once had an incident where I was electrocuted while cooking. It so happened that I had wet hands after washing vegetables and got into contact with the hot plate. From that day onwards I have always preferred to use charcoal as the main source of energy for cooking."









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Even though charcoal is cheaper, modern cooking technologies available on the Zambian market are far beyond the budget for most people with disability. For instance, a charcoal brazier will cost around ZMW 50 with a daily expenditure of ZMW 10 on charcoal while a two plates cooker stove will cost around ZMW 2000 for a standard one with at least ZMW 10 to 15 per day on electricity.

As for Jane, the CAPEX for acquiring hot plates or electric stove is the main barrier. Further, safety of operating the hot plates or electric stoves is of big importance. "I don't know how to operate a hot plate or electric stove this is because the manual for these devices cannot be used by people with disability. It is important that such aspects are considered when deploying such devices on the market."

Similarly, the research also captured PWD who were born with the mobility problem. She depends on crutches to support her with the mobility. When asked her why she uses charcoal brazier, she said this "Have a look at my stove in the house, I cannot afford to stand for a long time while cooking. I prefer using a charcoal brazier which is short, small and convenient for me to cook while seated."



We see from the above story, there is a need for the inclusion of people with disability (PWD) in modern cooking services. There is also a need to further explore how PWD can be included in such programmes.





