

An Investigation of how Youth Farmers are Redistributing their Time During the Covid-19 Pandemic in Kenya



Figure 1: Pictured above, Matilda, an ICIPE researcher, is interviewing a farmer

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1. Personal Reflection:

I am grateful for the Borlaug-Ruan international internship, which gave me an opportunity to ‘travel with’ and engage with some of the most dedicated and intelligent individuals, including mentors and fellow interns. By learning more about the way of life in Africa, specifically Kenya, I was able to get out of my own bubble of a small town in Iowa in the United States of America. I imagined, before COVID engulfed us all, that I would experience the local culture and share my own background with locals. Although I was not able to experience the culture of Kenya during the weekends while walking around the town, I could still see and hear how different and interesting life is as a farmer in Kenya through the interviews that we conducted. Without the hard work of the World Food Prize Foundation and the researchers at ICIPE, this experience would not have been possible, and for *that* I am deeply grateful.

Specific to my research, I learned about the value of conducting surveys of individuals and organizing focus group discussions. Also, as it was more challenging to get in contact with my mentors virtually, I learned the importance of communication and working together. Since my fellow interns were also new to this process, it was exciting to work with them, share notes, discuss data, and double check information. Often, we talked about how incredible it is that through technology we were able to connect with farmers in Kenya, while living so far away. Talking to the farmers allowed me to grasp the advantages and disadvantages that people in Kenya have compared to the people in the United States. In the past it has always been hard to wrap my head around the challenges that Kenyan farmers face but hearing stories about experiences from Kenyan farmers opened my eyes to the vast difference between the challenges they face compared to the minimal struggles I have faced. Finally, writing the research report

allowed me to look back on the data and the analyses to draw meaningful conclusions to learn about the life of Kenyan youth and farmers, and Kenyan life in general.

Although I sailed smoothly on this research journey, my mentors and I faced a couple of challenges because my participation was virtual. For example, the farmers were available to speak with us between 10 AM and 2 PM Kenyan time. Since Kenya is eight hours ahead of the US Central Daylight Savings Time, I had to be awake anywhere between 2 AM to 6 AM. This proved to be a difficult task because I am used to sleeping during that time. For the three weeks that we had interviews, I had to adjust my sleeping schedule to avoid sleeping through the meetings. Another thing that we struggled with was connectivity issues. During the first week, on top of waking up at 2 AM, we were not able to connect with the farmers that easily. Sometimes, it would take around 1 to 1 ½ hours just to connect. We solved the problem by taking advantage of Zoom technology on our end, and the farmers and our mentors went to higher ground to get a better signal on the other end. Obviously, we faced a lot of challenges, but the experience that we got from this research was well worth it. I am so grateful for all of the sacrifices that the farmers and our mentors made for us to gather our data and learn more about life as a Kenyan farmer.

2. Abstract:

The Covid-19 pandemic has affected countries all over the world in terms of health, economy, jobs, family structure, etc. One country that was also significantly impacted is Kenya, the country we studied in this research project. Although the novel coronavirus impacted Kenya in many ways, our research study focused on the impact it had on farming, specifically on youth farming. We interviewed male and female adult farmers as well as male and female youth

farmers for this project. We used the data and information provided by the adult farmers about the youth farmers and the data and information provided directly by the male and female youth farmers to get a better understanding of how the novel coronavirus had impacted the youth on Kenyan farms. We found that due to Covid-19, a large percentage of youth have spent more time on the farm because schools being closed, and they have faced several challenges on and off the farm. Some of those challenges included working hours on the farm that they were not used to, social distancing themselves from other people in order to stay safe and healthy, and getting involved in activities that were detrimental to their health and future, like joining gangs.



Figure 2: Pictured above, a youth farmer is shelling maize

3. Introduction:

3.1 The International Center for Insect Physiology and Ecology

The International Center of Insect Physiology and Ecology (ICIPE), a research institute located in Nairobi, Kenya, was founded by Thomas Odhiambo, a Kenyan entomologist. ICIPE's main goal is to ensure food security and achieve a higher standard of living in Africa. Currently, ICIPE is using science, innovation, and global collaborations to improve Africa's farming systems during a time in which the environments around the world are rapidly changing and advancing.

The research center focuses on insect research because in Africa, insects have been known to hinder agricultural productivity and food security because they increase water scarcity



Figure 3: Pictured above, Matilda Ouma, a researcher at ICIPE, is talking to the Odek brother farmers

and land degradation. Also, insects have been found to transmit harmful diseases to humans and livestock. So, ICIPE takes advantage of insect science to reduce food insecurity, increase agricultural productivity, and increase human and animal health in Africa.

3.2 Problems Faced by the Youth before Covid-19 in Kenya

Youth in Africa face several challenges. In the past, the youth employment rate has been high. In certain densely populated areas of Africa, farms are divided into smaller portions through successive generations leaving a small lot per each family, which forces youth out of the area and into big cities in search of livelihood. Men are forced to migrate to urban areas whereas women do not have the same opportunity because they are restrained by cultural expectations and instances of early pregnancy. In order to aid these youth farmers, ICIPE has provided them with mentors who impart general information about farming and teach the youth key skills so that the youth know how to farm properly no matter where they end up.

Another issue that youth face in Africa is that they do not have access to nor understand how to use modern technology. ICIPE has made this easier for youth by starting a network of ‘youth implementers’ whose main job is to spread technology amongst younger people and train

them. The intention is that with technology, youth farmers would be better prepared to deal with any challenges they face and also boost output.

3.3 Impact of Covid-19 on Youth in Kenya

As a quick summary, novel coronavirus (Covid-19) is a virus that has ravaged through several countries resulting in a worldwide pandemic. The virus emerged in China in December 2019, but since the virus can easily disperse from person to person, it has spread to many countries quickly through contact and travel. Symptoms of Covid-19 include fever, shortness of breath or difficulty breathing, new loss of taste or smell, and/or vomiting and congestion or runny nose. These symptoms are often showing up in infected people up to 14 days after exposure. At times, Covid-19 has caused respiratory problems, kidney failure, cardiac issues, or death. Scientists recommend handwashing, wearing a mask, and practicing physical distancing to avoid contracting the disease.

Around the time this report is being written, the World Health Organization reported more than 32.5 million infections and close to one million deaths worldwide from Covid-19. More than 16 million people have recovered from immediate Covid-19 symptoms, but the long-term impacts are not known yet. In attempt to reduce the number of cases China placed travel bans within the country, Japan had shut down schools and businesses, Italy had ordered strict nationwide lockdowns, and Spain had also ordered strict nationwide lockdown. Kenya, however, implemented different restrictions and has faced separate repercussions.

In Kenya, cases have only increased since March 2020. In order to suppress the spread of the virus the government limited the movement of people in places, closed certain public spaces, and enforced curfews as well as social distancing. Although these measures have done their part

in stopping the spread of the virus, there have been several negative impacts. For example, businesses and workers, including farmers, have faced negative economic impacts. Farmers are not allowed to market their crops the way they used to be able to because it is now unsafe to be in close contact. Due to these economic impacts, it is feared that poverty would increase.

Specific to the youth in Kenya, Covid-19 has caused many students to spend more time outside of school. Furthermore, there has been a spurt teen pregnancies and drug usage. In general, the youth have been negatively impacted. Accordingly, in this study, the following questions were studied:

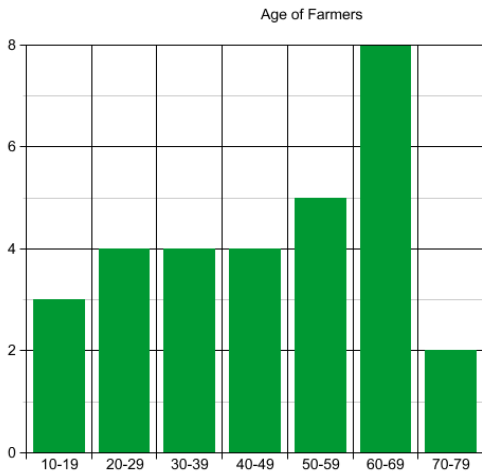
1. What challenges have youth farmers faced on and off the farm due to Covid-19?
2. By how many hours has the time that youth farmers spend on the field increased or decreased due to Covid-19?
3. How have youth farmers overcome the issue of unsafe marketing and selling during the coronavirus?
4. Is there a difference between the jobs that youth women and youth men have on the farms?
5. What is the main source of income for youth farmers? How has this become more or less important in the Covid-19 circumstances?

4. Methods:

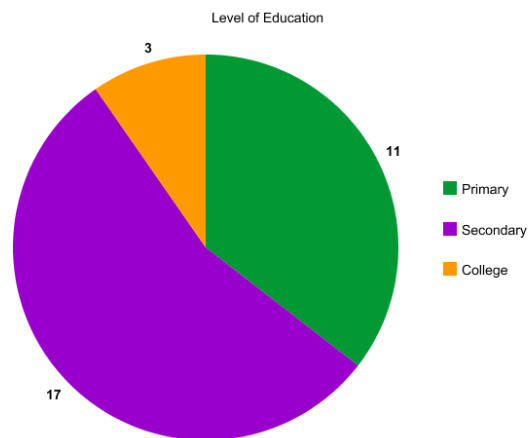
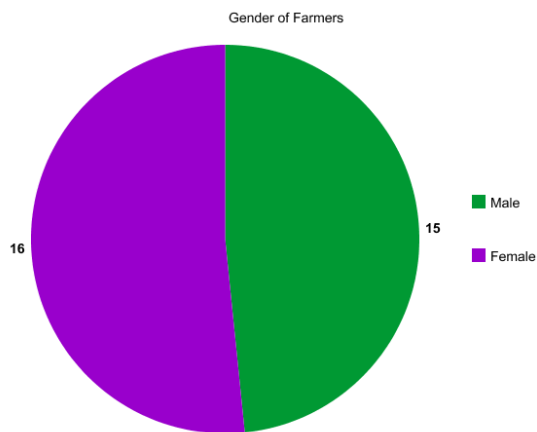
4.1 Demographics

Some background information about Kenya as a country is as follows: 1) the total population is 48 million, 2) the gross national income per capita is \$2,250, 3) the life expectancy at birth for male/female is 64/69, and 4) the country's average household size is 3.9.

This study surveyed thirty-one farmers located in Kenya. Twelve of the farmers were from Kisumu and the other nineteen farmers were from Homa Bay County. Both of these counties are good areas for farming, as they both have soil that allows for farming, brickmaking, and several other jobs. Of the farmers surveyed, there were sixteen females and fifteen males. Of the 31 farmers, we know the ages of 30 of them; their ages ranged from sixteen to seventy-four.



Of the thirty-one farmers studied, eleven have finished primary school, seventeen have finished secondary school and three of them have finished college. Although these are the education details at this moment in time, some of the farmers may go on to study at a higher level in the future.



4.2 Location

4.2.1 Homa Bay County

Homa Bay County is located in southwestern Kenya. Around 1 million people live in this county, and the county has an area of about 3,000 kilometers squared. The average temperature in Homa Bay can range from a mean minimum of 17.2 degrees Celsius to a mean maximum of 34.8 degrees Celsius. Lake Victoria, located near Homa Bay county, is a very important source of livelihood. Lake Victoria is the largest lake in Africa, and people in Homa Bay as well as other counties rely on Lake Victoria for food, water, and many other things. Recently there have been some challenges facing fishing in Lake Victoria.



Figure 4: Pictured above is Lake Victoria

4.2.2 Kisumu County

Kisumu County is located in western Kenya. The population of Kisumu is around 1,100,000 people and the area of the county is 2,000 kilometers squared. The average temperature in Kisumu county is about 23°C. Since Kisumu county has a high elevation, the temperatures are mild. The Kisumu region receives around 50 inches of rainfall every year. Kisumu county, like Homa Bay, is located next to Lake Victoria. Kisumu county has a port that is often used for trade. There are many trade routes between Lake Victoria and Mombasa in Kisumu city, which is a trading hub in western Kenya.

4.3 Tools Used

4.3.1 Individual Interviews

First, we conducted individual interviews. The interviews allowed each farmer to give a unique perspective on the issue/topic at hand. In order to conduct these interviews, the farmers would take time out of their day to take a zoom call where they were asked questions from a fixed questionnaire (see Section 3.3). These questions covered the role of youth on farms and how it has changed after Covid-19.

The questionnaire that we used was drafted and edited during the first week of the internship. After listening to some of the initial interviews, five very important questions were drawn from the questionnaire and emphasized during latter interviews (mentioned in the introduction). When asked about how youth farmers are dealing with Covid-19, youth (children-34) described their current situation; however, adults (over 34 years old) described the current situation for their kids or the youth around them. The questions were very broad and easy to understand so that the farmers could focus on what they felt was important.

The interviews were administered over zoom in either English or the farmers' native language. In order to accurately represent the farmers opinions, we tried to get a fair number of male, female, adult and youth farmers. Although there was no need to make the number of males and females to be exactly the same, we felt it was important to achieve balanced representation.

4.3.2 Focus Group Discussions (FGDs)

During the focus group discussions, the farmers were pushed to talk with their fellow farmers and discuss their ideas and thoughts freely. This was important because these types of discussions bring to surface information and weighty concerns in their community regarding the

topic. With information from both the focus groups and individual interviews, we could cross check and derive common important issues in the community.

During the focus groups, the same five important questions (mentioned in the introduction) were asked to all of the members in the FGD. Although there was no equal representation, there was some representation from both the males and the females. The focus group was organized and led by Ms. Matilda Ouma and Zoom was used to facilitate these interviews.

In terms of the area where the interviews were conducted, it had to be a comfortable place for the participants to stay. This is important because participants would be able to answer the questions more in depth and easily if they were in a comfortable place. So, the discussions were held in an open spot in their communities. During these interviews, the farmers were seated in an array. These participants were not told ahead of time what the questions were, but they were told that they would be asked questions about their lifestyles and challenges they face. This activity was fully voluntary; farmers did not have the answer the questions that were asked, but all were given the opportunity to answer. Overall, there was a lot of participation from the



farmers. The farmers only had one hour to answer questions because there are restrictions that have been enforced because of the Covid-19 pandemic.

Figure 5: Pictured above, Matilda Ouma, an ICIPE researcher, is conducting a Focus Group Discussion.

Since this FGD occurred during the time of Covid-19, more men and women were able to make the FGD and give their opinions. In the past, women would not join because they needed to attend to chores at their homes. But, because kids are now at home, women had more time on their hands in order to join the rest of the farmers in the focus group discussion.

4.3.3 Zoom

As this research project was conducted virtually due to the Covid-19 pandemic, Zoom was used in order to communicate with all farmers in different counties of Kenya. One of the issues that came along with using Zoom was that internet speed was often slow, making it difficult for the interns to connect with the farmers and the researchers. However, without Zoom, this experience would not have been possible at all, and interviews with the farmers would not have been as easily facilitated.

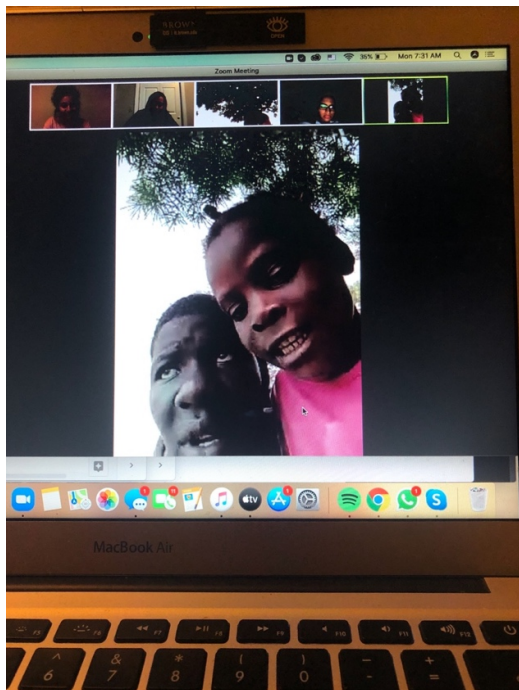


Figure 6: Pictured above, the three interns are conducting an interview with a farmer.



Figure 7: Pictured above, the three interns are on a zoom call.

5. Results and Discussion:

The results will be divided into commentary provided on each of the five broad questions that were asked to all farmers. Those responses will be divided by individual interviews and focus group discussions.

5.1 Results

5.1.1 What challenges have youth farmers faced on and off the farm due to the coronavirus?

Individual Interviews:

According to both adult and youth farmers, youth farmers have faced several challenges on and off the farm due to the coronavirus. On some farms, the fear of covid-19 and the pandemic has caused youth farmers to stop working on their farms. This behavior has caused a decrease in productivity for the youth and the whole family. Also, during the pandemic, it has been hard for some families to find people to work on the farm, so families have been pushing their children to work in the farm, as they do not have school. This has caused some inconvenience for youth, as they are not used to this type of work. Off of the farm, another issue that youth and parents of the youth are facing is that female youth may not go back to school because they will get pregnant during their time outside of school. Also, some young farmers who have a lot of freedom are using their time to engage in criminal activity.

Older youth, between the ages of 20 and 35, face problems like lack of market and not getting information on time for farming. Marketing is tough because youth are not able to travel long distances nor stay for very long due to the pandemic, so that has reduced the yield.

FGD:

During the FGD, farmers had some of the same responses when it came to problems younger youth face. The pandemic as created problems like pushing some kids to engage in drugs and other illegal activities. Although some kids are engaging in farming, they still have a lot of spare time. This spare time has been used in less than ideal ways. Controlling the youth has been very difficult because the transition during the pandemic has been very fast and radical transition. There are many issues of peer pressure within the youth like engaging in prostitution, drug addiction, and jobs to get income even when they don't have the skills, which can be life-threatening to them.



Figure 8: A youth farmer is pictured above standing in her PPT plot.

5.1.2 By how many hours has the time that youth farmers spend on the field increased or decreased due to Covid-19?

Individual Interviews:

According to some farmers, the amount of time that youth have been spending on the farm has decreased. The reason is fear of contracting the virus and social distancing precautions. On some farms, people are avoiding employing younger youth because they do not have as much

energy as older youth. Since middle aged farmers have more energy, they are valued on the farm far more than children.

Other farmers have been saying that youth are spending more time on the farm. When asked how many hours per day that youth have spent on the farm before the coronavirus, farmers responded that youth spent anywhere from 1 to 4 hours. When asked how many hours youth spend on the farm now that they do not have any school, farmers responded that youth are spending anywhere from 2 to 8. In terms of older youth, before corona, they used to spend around 8 hours on the farm. Now they spend around 10 hours because they spend more time at home. This is because they have lost some of their jobs due to Covid- 19 and now, they need to spend more time on the farm to make the same income.

FGD:

The consensus was that youth farmers have been working anywhere from 1 to 3 hours before Covid-19 and now they are working longer hours. The farmers are very appreciative of the help that they are getting on the farm.

5.1.3 How have youth farmers overcome the issue of unsafe marketing and selling during the the Covid-19?

Individual Interviews:

There are several ways that youth are combatting the issue of unsafe marketing. Recently, some youth have been organizing themselves into a common interest group. Through these groups they are able to get market access, so they're able to sell their produce. Generally, youth do not go to the market because there are more things to do at home, however, when they need to go to the markets, the youth don't overstay at the markets.



Figure 9: Pictured above, a push-pull farmer is spending time with her children

Some older youth are overcoming the issue of unsafe marketing by selling at their farms. Although they are making profit, they are not earning as much as they could have at the market. Some of the younger youth walk from home to home to sell fruits.

Some youth who have lost their jobs are now engaged by the NGOs to produce poultry and agrobusiness. This aspect of organization is important during the pandemic because now some farmers have a common interest group. Although it is dangerous to travel, youth farmers travel via motorbikes because their earnings are essential to put food on the table.

FGD:

In the group discussion, one big issue mentioned was transportation. Currently, in terms of transportation of crops, youth are very handy in reaching the market faster because they are the best at using the motorcycles. They also have the energy to carry heavy loads to the market and sell from dusk to dawn. The timing of transportation, however, has been difficult because the government guidelines require farmers to stay in the market for at most an hour. With this time limit, farmers can't take a lot of produce to sell, thus reducing the profit of the produce.

5.1.4 Is there a difference between the jobs that youth women and youth men have on the farms?

Individual Interviews:

When asked about the difference between the jobs that men and women have on the farm, some farmers said that there is no difference. The youth men and women do not segregate and do the work for all. In the past there were a lot of conflicts between the two, but because of new and improved trainings, anyone can do any job in farming now. Some farmers have mentioned that although both women and male youth have the same jobs, women youth are more resilient on the field as compared to men.

However, some other farmers said that there is a difference between the jobs that youth women and men do on the farm. According to some farmers, the youth men do the work that requires more energy and women do the work that requires less energy. For example, youth men clean and plow the fields and clear the farm, while women only do weeding and planting. Now that youth women and men have more time to spend on the field due to the pandemic, the women are spending more time doing chores in the house while the men are working on the field

FGD:

Some of the adult youth are saying that the amount of time women spend on the farm has reduced because of the presence of their spouses. Male youth are spending more time of the field, so the women have to do less on the farm. There are some specific jobs that are more of male domain like land preparation and clearing the farms before preparation. Male youth have also been doing the digging, milking, cleaning the compound, treating animals etc. For female youth, the main jobs are fetching food, harvesting, watering animals, fetching firewood, doing household chores, and cooking.

5.1.5 What is the main source of income for youth farmers? How has this become more or less important in the Covid-19 circumstances?

Individual Interviews:

According to most farmers, farming has been and continues to be their main source of income. During Covid-19, farmers have been losing their other jobs and have had to settle back into farming to put food on the table for themselves and their family members. By selling products locally, farmers have been able to make some money. Since Covid-19 has taken away many opportunities from the community, farmers, including many youths, are realizing the importance of agriculture. One farmer even said that some young girls like agriculture now because they are becoming more involved in the harvesting process. Covid-19 has extended farming because everyone is helping out, including young boys and girls who may not have been able to help before due to school.

Farming has recently become a very important activity especially during corona because the life of the farmers is on the line. Also, during this pandemic, security is based on production rather than accessibility. Accessing it from other sources is difficult and more expensive. Farmers are food secure due to farming and eating their harvest. It is only occasionally that the surplus is sold little by little to generate income to meet household requirements.

FGD:

Many farmers have learned that farming is very important during the pandemic because if one is not food secure during corona, there are no other options. Since people are in lockdown

and are not able to leave home, farming is the most important activity. Many farmers have lost



Figure 10: Pictured above, Matilda Ouma, an ICIPE researcher, is helping out on a farm.

their jobs during the pandemic and

only those who have access to

farming can sell and make a profit.

More often than not, however, the

crops that farmers have been farming

have been used to feed their own

families.

5.2 Discussion

Through our experiment, the data displays the huge impact that the Covid-19 pandemic has had on youth farmers in Kenya. Along with the expected effects on farming profits decreasing and changes in produce, the pandemic has also brought along some startling negative impacts. Among these unexpected changes, one of the most detrimental to the youth has been the extra free time, which has allowed for them to make bad decisions. Our interviews also showed how the differences in gender among the youth have occasionally affected their roles on the farms. Since youth farmers have been spending more time on the farm with adult farmers, both adult farmers and youth farmers have recognized the importance of farming and having a reliable food source. Overall, the pandemic has entirely shifted the roles of youth farmers in Kenya.

6. Acknowledgements:

Although our experience came with several challenges, we were pushed to overcome those challenges and in turn, learned so much more about life in Kenya and the importance of general life skills and relationships. I would like to thank everyone who made this experience possible for me. I would like to thank Professor Zeyaur Khan and Mr. Jimmy Pittchar for making sure that I am on the right track and for providing feedback on my documents. I greatly appreciate the warm mentorship provided by Ms. Matilda Ouma. It would not have been possible without her being there every step of the way to translate sentences, answer questions, and help me analyze the information. Also, my sincere thanks to Mr. Chris Momanyi and Mr. Philemon Orondo for making the transition from an in-person research project to virtual a virtual project easier. Finally, I would like to thank my fellow interns for joining me on this journey and helping me along the way.

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