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Livelihoods of the People of Mazumbai: A Collection of Stories and Portraits, Tanga Region, Tanzania

Joseph Baldus

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A Collection of Stories and Portraits

Tanga Region, Tanzania



Joseph Baldus Academic Director: Dr. Felicity Kitchin Advisor: Dr. Alodia Machumu Macalester College

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Abstract

Despite rapid urbanization in Tanzania, agriculture remains central to the nation, the economy, and the livelihoods of a large portion of the population. Smallholder farmers account for the vast majority of agricultural production, yet are an extremely vulnerable population due to poverty, single-sourced income, and climate-dependency for both subsistence and cash-crop agriculture (Rapsomanikis, 2015). This report explores these dynamic rural livelihoods through interviews and portrait photographs in a case study on Mazumbai, Tanga region, Tanzania. Semi-structured interviews explore the people's modes of economic subsistence, domestic lives, education, challenges, and life stories. Excerpts from these interviews combined with portrait photographs create vibrant profiles of individuals that together reflect the broader story of all the livelihoods of the people of Mazumbai. Through these profiles, three major themes emerged as most pertinent: (1) the centrality of agriculture, (2) the impact of education, and (3) efforts to diversify income. This report brings these three themes to life through a storytelling format that is accessible, interesting, and informative to a wide audience, beyond just academia. There is universally a humanitarian importance and benefit to learning about and understanding other ways of life. Locally, these rural livelihoods are especially important to understand and document because while they are central to the nation, they are under threat and vulnerable. Studying Mazumbai as an agricultural community also highlights some of the most direct, negative impacts of climate change on a global scale, and how these affected populations will continue to respond and adapt in the future.

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Introduction

The world's population is increasingly concentrated in urban areas, often due to better standards of living and greater economic and social opportunities. Sub-saharan Africa is regarded as one of the fastest urbanizing regions in the world (Potts, 2013). Indirectly, this shift has created a division and increased disparity between the livelihoods of those living in urban versus rural areas. Part of the divergence of livelihoods is a disconnect in understanding and awareness between rural and urban livelihoods and the systems that intimately connect them (Mhamba, 2015). City lives are still closely tied to rural lives in many ways, such as food supply chains and raw resource supply (Gollin 2018). Rural, agrarian livelihoods still form the backbone of Tanzania and the national economy. The agriculture sector alone accounts for almost 30% of the national GDP (Rapsomanikis, 2015). As an essential component of the economy and society, rural livelihoods deserve widespread awareness and consideration.

As with most developing countries, the vast majority of farmers in Tanzania are smallholders, owning under 2.2 hectares. Smallholders produce the majority (69%) of the whole country's food, yet many of these families are poor, food insecure, live under marginal living conditions, and have limited access to services (ibid). For most smallholders, agriculture is their only source of income and food, making them very sensitive to any catastrophe. Due to all these restrictions on their livelihoods, smallholders are an especially vulnerable population, highly threatened by changes in environmental or economic conditions. These most fragile livelihoods often unfairly bear the brunt of impacts from climate change because they depend directly upon the land and climate for both income and subsistence agriculture (Olkovsky, 2017).

These negative impacts have already begun affecting rural livelihoods, and are expected to only intensify. Of all regions worldwide, sub-Saharan Africa has developed the worst gap in harvest yield potential versus reality (Rapsomanikis, 2015). Tanzania's productivity of maize, a primary national food crop, has dropped to one of the lowest levels internationally (ibid). Documenting rural livelihoods exposes some of the most severe impacts and risks of climate change. To increase resilience in the face of these threats to their livelihoods, many smallholder farmers are now diversifying sources of income. Diversification efforts consist of involvement in the "rural nonfarm economy," such as small shop businesses, as well as out-migration to cities

for other employment opportunities (Christiaensen et al., 2013). Livelihoods with diversified income are more sustainable because they are supported by varied sources of income that are less at the whim of climate conditions. Diversification is only an option for some smallholders though. Lack of capital and education prevent many people from diversifying. Smallholder farmers average only 4.6 years of total education (Rapsomanikis, 2015), and frequently subsist on a day-to-day budget. Previously, the "increasing diversification of farm and non-farm activities" has been studied as an important survival strategy for people in the West Usambara Mountains, where Mazumbai is located (Huijzendveld, 2005).

This report on the people of Mazumbai is inspired by the precarious duality of their rural livelihoods, as highly important yet vulnerable. The goal of this study is to explore what the livelihoods are of the people of Mazumbai by documenting and sharing their stories. How do they create lives for themselves in this area and what challenges do they face in doing so? This study aims to examine 'livelihoods,' with respect to the natural and physical resources available, as well as the intangible, social resources of opportunities and access (Chambers and Conway, 1992) Universally, there is a humanitarian importance and benefit to learning about and understanding other ways of life. Locally, these rural livelihoods are especially important to study and document because while they are central to the nation, they are vulnerable and currently threatened. Studying Mazumbai as an agricultural community also highlights some of the most direct, negative impacts of climate change and how affected populations might continue to respond and adapt in the future.

This report is composed of a collection of 'profiles' of individuals, each consisting of a portrait photograph and interview excerpt about his or her livelihood. Each person's story will reflect a different aspect of livelihoods in Mazumbai, together capturing the story of the community as a whole. This storytelling format aims to highlight distinctive characteristics and differences in the people's lives, while also emphasizing the similarity of the human experience, struggles, and connection. People naturally empathize and relate to other people, and photos and stories especially have the power to elicit powerful human connection. This report will bring you

face to face with the people of Mazumbai, sharing their livelihoods through evocative photos and excerpts.

Inspiration for this format of storytelling comes primarily from a stylistically similar project, *Humans of New York (HONY)*. Author and photographer, Brandon Stanton, utilizes a captivating mix of photographs and quotes to share people's stories. A unique and defining characteristic of this mix of media is its accessibility to the public, everyday audience, rather than solely academia. Aided by the boom of social media in this generation, this appealing format has quickly grown in popularity and success. Starting as a small pilot photography project, "providing a worldwide audience with daily glimpses into the lives of strangers on the streets of New York City, HONY now has over twenty million followers on social media" (Stanton). HONY has also recently expanded to include 'series' that focus on "specific populations, examining their experiences and the challenges that they face" (ibid). This collection on the people of Mazumbai is similar to a series: a collection on the people of Mazumbai focused on their rural livelihoods. *Humans of New York*, its mission and approach, has provided inspiration for how to conduct and structure this project documenting the livelihoods of the people of Mazumbai.

Study Site

The livelihoods of the people of Mazumbai are closely connected to the land on which they live, the area, and the climate of the region. Mazumbai is located in the northeast corner of Tanzania in the West Usambara Mountains, part of a larger range of mountains called the Eastern Arc Mountains (Map 1). This belt of mountains spans eastern Tanzania up to the border with Kenya. Temperatures are lower and precipitation rates are higher than in surrounding areas. Like the rest of the country, precipitation patterns are bimodal, with



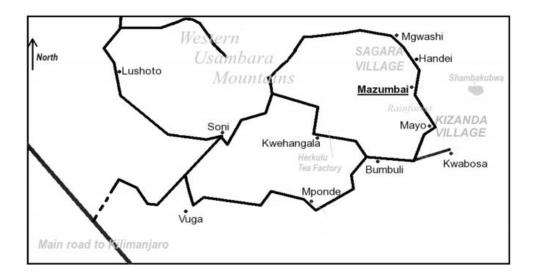
Map 1. The Eastern Arc Mountains of Tanzania, which include the West Usambara Mountains, where Mazumbai is located. (UAMCEF)

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the long rain season occuring around March to May, and short rains sometime November to December.

As farmers, the climate is vital to the people of this region to support their lives. Agriculture is the dominant form of income in the area, along with small business. The vast majority of people grow a variety of crops, including: maize, beans, potatoes, sweet potatoes, yams, cassava, bananas, tomatoes, cucumbers, green peppers, tea, and a variety of spices. Most everyone keeps some portion of the harvest to feed themselves, and sells other products at both local and distant markets, such as in Dar es Salaam. Started by the German and British in the 20th century, tea is the primary "cash crop" in the region, providing a common means of income.

Mazumbai is one of a few small hamlets, or subdivisions, of the village of Sagara. A valley road connects Mazumbai to Sagara through about five kilometers of farm fields (Map 2). Just uphill from the mud and brick houses of the hamlet is Mazumbai Forest Reserve (MFR) and house, now owned and managed by Sokoine University of Agriculture. MFR is a protected climax montane tropical rainforest, previously part of an expansive tea plantation of a Swiss family, the Tanners. Downvalley in the opposite direction of Sagara lies Kizanda village, connected by a forest road passing by many tea fields near Mazumbai. Sagara and Kizanda form the key geographical network by which the people of Mazumbai shape their livelihoods.



Map 2. Mazumbai and surrounding villages, forming the basis for the livelihoods of the people of Mazumbai. Source: (Daddis 2018)

Methods, Ethics, and Limitations

The methods and process lay at the heart of this project. Quality, transparent interviews provide the power of this narrative format of storytelling. Most basically, I conducted semi-structured interviews with the people of Mazumbai and took portrait photographs of each participant. I loosely regarded 'the people of Mazumbai' as those living and/or working most proximal to Mazumbai hamlet. Specifically, these are the people found daily in the hamlet itself, in the fields along the forest road to Kizanda, and along the valley road towards Sagara. Within the bounds of this geographical area, I used opportunistic sampling by interviewing whomever I encountered. Male or female, young or old, the only other criteria was that the individual was above 18 years in age. In order to portray a representative sample of the population living and working around Mazumbai, I divided my time evenly among the three previously mentioned sub-areas: (1) Mazumbai hamlet itself, (2) the forest road towards Kizanda, and (3) the valley road towards Sagara village. I conducted interviews in the mornings between November 4th and 20th, and did interview and photo processing in the afternoons. In total, I did 44 interviews, with 26 men and 18 women. For all interviews and interactions, I had a local translator from Mazumbai with me who knew Kiswahili and the local language, Kishambaa.

Sharing people's stories and lives in a respectful, ethical manner requires much forethought and intentionality. First and foremost, before each interview I ensured there was written, informed consent, through my translator. Each interviewee signed a consent form that outlined my project, stated voluntary participation, confidentiality, offered anonymity, and explained that there were no penalties or loss of legal rights. I provided a 2,000 Tsh 'asante' to each interviewee, thanking them for their time and participation. Additionally, upon arrival back to Arusha, I printed copies of the portraits and sent them back for each person to keep. The people of Mazumbai also indirectly benefit by their stories and livelihoods being documented and shared with a wider audience.

Throughout the interview and entire interaction, I also made intentional efforts to build trust, comfort, and respect with both the interviewee and my translator. Before beginning the interview, I would exchange greetings and pleasantries in Kiswahili. During interviewing, if I sensed a particular topic was too sensitive or personal for the participant, I would move on to

another. Also, I did not ask any question that was too uncomfortable for my translator to ask for any reason. At the end of the interview, I would invite them to ask any questions of me. Then, I would take portrait photographs of them and show them the photos I had taken. After some interviews and every day, my translator and I would check in about how the interviews were going and make any necessary adjustments.

I designed a set of interview questions that explored the most relevant, paramount elements of people's livelihoods, while building trust and respect between the interviewee and I. In order to increase the comfort of the interviewee and transparency, my interview guideline (Appendix) began with easy, general questions before progressing to more difficult intimate, emotional questions. I began with questions about their family, occupation, income activities, domestic activities, and the area where they live. Then I asked questions about their past, their childhood, what has brought them to be where and who they are today. A final group of questions were more open-ended emotional, personality, and value-oriented questions. Who in your life has been the biggest role model? What is the biggest struggle or challenge in your life right now? What are you most grateful for? What is one hope or wish you have for your and your kids' future?

As is evident, the questions covered a wide range of topics, with an emphasis on just getting them talking about whatever is most important and relevant to their lives in Mazumbai. As the core of this report, the critical aspect of the interviews was that each person's answers vibrantly reflected their personality and livelihood. While most questions were fairly consistent across all interviews, some questions also varied depending on previous answers. For this project, it was not essential to hold all questions constant because answers were not quantified or compared, but rather just used to describe their livelihoods and find themes.

The language barrier undoubtedly created the most significant limitation of this study. Ideas, tone, and nuances were surely lost and simplified in translation. This was a challenge on the front end, asking questions, as well as translating answers back to English. The loss of detail in responses is especially unfortunate for this report because it heavily relies on the subtleties of direct quotes to bring the people to life. Unearthing more distinctive, intimate elements of these individuals' livelihoods also requires the complete willingness and transparency of the interviewees. This created another limitation, as some people were obviously closed and providing simple, cookie-cutter answers. Time was also restricted, reducing the number of interviews I could conduct. This study would be improved by interviewing more people in the area and also surveying other villages for comparison. With these limitations in mind and by nature of the format alone, this report is of course not an exhaustive analysis of the livelihoods of these people, and it was never intended to be. This is but my humble effort to capture some of the most significant, characteristic parts of the livelihoods of the people of Mazumbai, through compelling portraits and excerpts.

The Three Key Themes

From all the interviews with the people of Mazumbai, three key themes or issues of their livelihoods emerged: (1) the centrality of agriculture, (2) the impact of education, and (3) efforts to diversify income. Each one of these themes is explored in its own section through a collection of pertinent profiles. The three sections provide an organization to the catalog of people, but are nonetheless truly deeply interconnected. Each profile also certainly addresses other issues that are equally as important to their livelihoods. And while some people's profiles are directly related to the theme, others are more distantly connected. The people included in this report are only a selection of all the interviews, but were chosen because together they reflect the common experience of all the people of Mazumbai. Each section begins with a some background and a short synthesis of the section topic, but then steps back and lets the people of Mazumbai share their own livelihoods and stories.

The Centrality of **Agriculture**

Agriculture is the centerpiece of life in Mazumbai. Everyone works the family fields, 10-year-olds and elders, men and women alike. Farming is a lifestyle and tradition, often passed down for generations, and with it the same fields and knowledge of their ancestors. Tea is the dominant cash crop, paying 314 Tsh per kilogram of raw tea leaves, which is less than 15 U.S. cents. A tea truck drives the road collecting harvests twice weekly. People are paid at the beginning of the month and again on the 15th. Agriculture is by far the primary income generator, but also people's primary source of food. That said, not everyone's experience as a farmer here is the same. There is a wide range of levels of happiness and success with their farming endeavors: bountiful for some and marginal for others. There is also a mix of perceptions on if and how the climate and growing conditions have changed over the past decades. Some people claim higher yields, often in relation to modern methods and fertilizers, while others report disastrously lower yields, detrimental to their livelihoods. The general trend is observations of worse growing conditions, less rainfall, lower crop yields, and a feeling that their income is insufficient to support themselves and the livelihoods of their families.



Potina Abraham, 50 years old

"What my parents did, I am still following today. They came here to Mazumbai from elsewhere to work in the tea fields for the owner of the Mazumbai estate. I also grow and sell tea for a living, also beans and maize. My parents have given me the knowledge of how to be a farmer, I have learned the ways from them. How to plant each crop is different. You must plant and care for beans different from maize. Beans we plant depending on the season, once in March and again in November. Then it takes about three months until harvest, depending on rainfall, you must have enough rainfall. All these things I have learned by observation. When on holiday from school, I would go together with my parents to the farm. Agriculture is challenging, it is very difficult in practice. Our human labor is not enough, it is hard work. But it is our culture, there are no other employment opportunities here. The economy and shortage of money is a big problem in Tanzania."



Charles Samuel, 60 years old

"I am living in Mazumbai with my wife and one of my children. I have seven children and eight grandchildren in total and I want to ensure they all are getting enough education. I would love to have more money to support our lives: food, education, medical services. I am a farmer and also keep many livestock. I feed them grasses when I wake up and then again after farming all morning. The grasses come from my farm, planted specially for feed. We have many chickens, for us to eat, and the cows we sell. One big one sells for maybe 700,000 Tsh. They can get diseased, but there are doctors that can come treat them. I also grow many products to sell - cardamom, avocados, yams, sweet potatoes, beans, tomatoes, maize, and tea. What crops I plant depends on the condition of the market in this area. If one product is abundant here, the price you get is low. If there are few of another product, its price is up. I can get 300,000 to 400,000 Tsh for this plot of tomatoes here, but they depend upon my tea sales. Once I sell tea, I can buy chemicals for fertilizing the tomatoes. Being able to grow a variety of different crops is essential."



Paulina Mtange, does not remember age

"My husband came here to Mazumbai as a cook for Hansi (Tanner). I was a farmer, growing maize, beans, vegetables, banana, tea, and took care around the house. Life was good, they were very kind. Now I live here with my husband, Michael my grandson, and some others. This is where my life and family is, this is home to me. The people of Mazumbai, we are all living here together and everyone is living with love for each other, kindly, in cooperation. Agriculture is what we know, it is what we know and do. There was no hope or wish of anything else for me growing up, I knew it would be agriculture. In the past times, farming was different, there was no use of fertilizers or chemicals like there is now. I am no longer able to practice agriculture though because of my old age, I am just weak. God, He is the one who has given all this life, throughout life. He has gifted me good health and helped me with no disease. Now, I am not trying for anything, I am just waiting for death to take me."



Wilson Gendo, 35 years old

"I am from here in Mazumbai. I have four children. I am a farmer, I apply irrigation, especially for tomatoes. It helps to get more money from my products. I sell them far from here, all the way in Dar es Salaam because there is a better price. To get them there, I send them by lorry. I am grateful for good business, good business makes me happy. My biggest problem is that I don't have enough capital because with tomatoes especially I need to buy a lot of chemicals, which means I need big capital. My income from cultivating supports me and my family well. At least moderately so. My children are very young. There is no other support anywhere. So it must be me. I want them to get a good education, and afterwards a good job, maybe a teacher. I spend time with them every day, during the evenings, I like to sing songs with them at home."



Kassina Mhema, 35 years old

"I grow many different crops: beans, maize, tea, cardamom, cloves, and cinnamon. I have fields I cultivate here, but also farther away in another area called Armani, about six hours drive from here. Some seasons I stay there in Armani in another place I have, other seasons, here. I employ people on my farms to help when I have big projects, like cleaning the field or harvesting tea leaves or cloves, for example. They are often me neighbors or relatives, and I pay them wages, 5,000 Tsh per day for men and 4,000 Tsh for women workers. Men are able to work more than women because women have their tasks they must leave to do, like collecting firewood and picking veggies. Anytime, people can come to me and ask for money if they are in a tough situation and really need some at the moment, in agreement that they will come and work for me the next day. For me, business is going very well, I am happy with it. With all my crops, if I have a high product yield, then I can sell, if low then I just use for my family and don't sell. This provides me with the money I need to support my family and develop, I can afford food we need, and to send my children to school, which is very important to me. As a kid, my aim was to be a teacher, but I failed so started dealing with agriculture. It was very challenging in the past, there were very few secondary schools compared to now, so I was unable to go. After I stopped school, I helped my parents around home farming before marrying and starting my own business. Some of my fields I inherited from my parents, they were the ones to convince me to pursue agriculture. The farms in Armani I have bought and started myself since then."



Liliani Mtei, 56 years old

"I live in Kizanda, it is the place of our origins for many generations. This tea plot has been handed down from family to family. In the past, we were not very familiar with the importance and knowledge of agricultural techniques. Now we know even how to protect seeds from harmful things. We believe that if we plant well, protect well, and cultivate well, then we will be able to sell and make money. Field officers have taught us the ways we now know. They call meetings in each town to talk with groups of farmers and teach us, give us the knowledge we need to cultivate more effectively. For example, we must use a machete or poison to kill the undergrowth, rather than a hoe because that can cut the roots of the tea plants. We just use poison, applied twice per year, it kills the grass but does no harm to the tea, specially for this use. I am applying for aid from the government to support agricultural activities. We form a coop union as farmers in this area, meet and discuss what issues we have, and what we need to solve them. Then as a group we apply for aid, like a loan, from the tea factory company. The money would be used to cut tea plants to help produce stronger ones, cleaning the field, and also buying poisons and machines, to improve our agricultural activities. My hope is that that would bring more money and better support my life."



Potina Mandia, 78 years old

"I am from down the valley, near Vooga, near Soni and Mambo. I have 10 kids and 2 grandchildren. I like my work practicing agriculture because it is good exercise for my old body, a good test. I am grateful, I am elderly, but still have energy and power to do what I love and need. The land gives us food. In the mornings I do farming activities, every day of the week. In the past, we were getting high yields, high productivity, but nowadays we are not. I believe maybe the land has lost its fertility, its exhausted. It's important to conserve the environment, everyone must conserve because the environment facilitates good climatic conditions and rainfall. We have seen things like destruction of places like this, people in the future might destroy the forests."



Edina Antony, 68 years old

"My tea field here is about one acre, I get 80 kilos of tea from it in all. If I cleaned it out, weeded it, then I could get well over 100 kg. The work is a challenge for me though because of my old age, and I am a widow, so I have less assistance. It is not the easiest of best for me to take the hand hoe up and down this whole hillside - better to use chemicals. I have so very little money, I can ask my grandchildren I live with for help, but otherwise there is not much. All of us tea farmers do have good relationships too. Sometimes, if I can't work my field, I can ask them to and I repay them by cooking for them. Last pick-up, I got about 30 kilos, today maybe a little more than that. At about 300 Tsh per kilo, that is 9,000 Tsh. I am happy with that amount of money, there is no way out. During dry season, tea products are not as much, so I decided to sell others: cassava, banana, beans, some vegetables. In the past, we were using local seed for everything, but now we mainly buy them from shops in Bombuli and Kizanda. Between new seeds and chemical fertilizers we can have very high production now, but the problem with that is always a shortage of money."



Monica Mhema Mdolwa, doesn't remember her age

"There have been many changes to this area. Before, people were not able to see across the valley, but now we can, because people are cutting down many trees, legally and illegally. But this is okay because the number of people here has increased a lot, there is a population issue. More and more people have come to establish farms and people want to find area for building their houses. Maybe people on farms can also plant trees and apply fertilizer so they grow well. I use the land to practice agriculture, growing mainly beans and maize. The forest is very important. The trees prevent soil erosion and keep good climate patterns compared to places where there is desert. In this area it takes 6-7 months for maize and 3 for beans because of the climate. In hotter places it can take 3-4 months for maize. After people die, we must also go down into the earth like the plants. I struggle with body weakness, I don't have enough power to perform all my duties. I am not wishing for anything right now, I am just waiting for death."



Rogers Kanike, 45 years old

"In the past, we were planting only once per year and would have plenty, but now we plant three times per year and products are still low. There isn't enough rainfall now. Sometimes we have very heavy rainfall, but it stops quickly and is dry for a long time. This problem has seriously affected my life economically. One year I planted a very large plot of land and then there was not enough rainfall, so they all died. It was a big investment that I lost, it is still impacting my life today. I have been forced to cultivate in places where I can easily apply irrigation and I have also changed what I grow. In the past I grew primarily maize and beans, but because of challenges I added some vegetables for a variety. I also make efforts to maintain the good soil quality here not always farming the soil, also giving it a rest. The best action we can take is to plant many trees and protect our water sources. People must plant trees around their own farms to use for firewood instead of cutting others down. It's also important that people be educated on the importance of forests to us and farming."

The Impact of **Education**

Like any other place, growing up, people here have dreams and intentions of doing all different kinds of jobs: businessmen, engineers, doctors, teachers, the president. But for many still in Mazumbai, these dreams were cut short by inadequate education. There is a vicious cycle of lack of access to education, limited employment options, defaulting to agriculture, poverty, and back to an inability to afford education for children. Very few go beyond primary school, which is the first seven years, and many do not even get that far. There are no school fees for primary school or secondary school, but the costs of materials and uniforms alone are too much. In Mazumbai, these costs are around 50,000 Tsh (about \$22 USD) per child for a year of primary level education. Sometimes death of a family member, disease, or sickness can also force someone to drop out of school and into this cycle. On the flipside, further education often enables people to amass enough capital to invest in other ways of development and ensuring their kids can follow down the same path. Most often, people see the importance of education and want to provide it for their kids more than ever, but when push comes to shove, they are unable. Many people did optimistically express beliefs that schooling was becoming more available, valued, and common for kids today compared to past generations.



Msafiri Julius, 30 years old

"When I was a young boy, I lived with my grandparents here in Mazumbai. It is in our culture, sometimes grandparents really like to live with and have their grandchildren. Maybe once they are 10 years old, grandchildren can move from their parents to live with their grandparents. But also I moved to live with my grandparents because of school. The schoolhouse was very far from my home in Kizanda, where I was living with my parents. Here in Mazumbai, it's much closer to my grandparents. My aim was to be a teacher. After finishing the seven years of primary school, I went and visited my brother and sister in Dar es Salaam while I waited to hear if I qualified for secondary school. But the day came and I did not, so I could not be a teacher and am here as a farmer now. I want to change life for my children and send them to school. I am trying to start a small business as a entrepreneur to make enough money to support them. Also the environment is more encouraging towards going to school now. The government is working to make school more accessible and reduce fees. There are many more schools now, so the cost is less. I want my kids to have the opportunity that I never had, to be a teacher."



Fahdila Saidi, 40 years old

"In urban areas, almost everyone studies and goes through school because there is not another option for the future. But in the rural, for some parents, putting their children through education is just not an option, so we plan for children to carry on with farming. I have four children, two boys and two girls, I want to be able to send to college, but right now I do not make enough money through farming to support them. I am planning to start another business, maybe first selling off cows to help fund starting to selling *kangas* and other things in a little store. Establishing this business will change my days, give me another thing to do, to focus on. In rural areas, like here, we have a good life though. Much of the time we don't need to buy foods, we use what we grow ourselves and sell extra too. In towns, you must buy all your food, anything you want. Here, not all the time can we have money to buy food, but because we are the farmers, we can get food to eat ourselves. I grow maize, beans, tomatoes, cassava, sweet potatoes, irish potatoes, and tea."



Fadhili Juma, 33 years old

"It started after the end of primary school. I wanted to be a carpenter and had planned on going to technical school for training. But then I suffered from disease, which prevented me. For two years I was sick. I had malaria and then afterwards it caused another body weakness, so I was not strong enough to go to school as I wished. It forced me to reconsider and do very simple activities that do not need high levels of education. So that is why I am a farmer today. Throughout my whole life, from very young, my father has always been there for me. He would bring me everywhere with him. When he went to the farm, he would bring me with. He was the one who thought it was best for me to go to carpenter school. Even when I was fighting disease, he gave me the inspiration to persevere. Even though I was unable to continue education, I think it is very important because it gives someone direction in life. I want very much for my kids to go through school. I have two young boys, the firstborn will start school next year. But farming is not giving me enough money now to pay for education costs."



Adija Msagiti, 63 years old

"Growing up, I learned much of my farming knowledge and skills in school. At that time, curriculums allowed teachers to teach about farming. Now the government does not include teaching farming. I went to school for the seven years of primary school. My husband went through secondary school and also two years of college, to become a teacher. Marrying a teacher for a husband has made the biggest impact on the outcome of my life. When starting farming, we had only three farms and were practicing only subsistence farming. With money from his income as a teacher, we now have very many, about 14, and are also able to grow cash crops for even more income. That money also allowed us to start a little shop that our son runs, selling small things like sugar, soap, and cooking oil. The money from my husband teaching can be used to continue supporting our family. We are able to send our kids to school so they can also do other work. Two are teachers, one is a driver, and another is a businesswoman, living in Dar."



Angelina Richard, 47 years old

"My parents did not want to send us to school when we were children, especially us women. They told us it is better that we practice agriculture, growing tea, or tobacco, or raising livestock. They wanted us staying here, out of the towns, they were worried once we went to town, maybe we would get pregnant, but not here in rural areas. My brothers went off to town and advanced school, they had no danger of pregnancy. Now one is a doctor, another a teacher, and a third is an office worker, they live in the towns, Tanga and Dar. I would have loved to continue schooling and go, but that is okay. This life that I have is my life. I don't need a different life, it is okay. The way things go is okay. I can support myself and my family. I am grateful for my ability to do work and for the money I do have from agriculture. Now I favor here because it is familiar. Life in rural is simple compared to town."



Beatrice Jeremia, 43 years old

"When I was seven years old, my mother died, so I had to stop school in order to take care of my three-year-old sister. I was in charge of raising her. So I have only had two years of schooling in my life. Now whenever I see someone who has had much education, I feel very weak and lesser, this has affected me much throughout my life. If I were to get the opportunity to go now, I would leave the house this moment and go to school. I am illiterate now and want more than anything to learn to read and write. I don't know if I will ever have the chance. I can practice alone writing by imitating text, but I can't learn to read alone, I need someone to show me how it sounds, to speak. In the evenings, after my kids return from school, they teach me some, showing me how to read and write. It makes me very happy to share with them. The one who teaches me, he was very stubborn and lazy, he didn't like school, but I made him go and he likes it now. Even if I didn't go to school, I want my kids to, somehow I will make it happen. Farming is a thing of chance, you can plant and harvest, but if things go wrong, your money is swept away. Other jobs, once you find a job you have steady pay and no problem."



Bariki Abraham, 30 years old

"I am a farmer of maize, beans, coffee, banana, and cardamom. I also am a repairman of peoples' shoes, mobile phones, solar panels. I went to primary and secondary school, eleven years in total. I was not able to perform my best though because my father died. I wanted to be a teacher and preacher, to teach education and the word of God. Since I was young I have studied English using the bible, the new and old testament. I take a Kiswahili bible and an English bible and compare word by word. I started reading the bible when I was seven. Now, the bible teaches me everything good versus bad, it shows me the path to walk in life. The bible teaches me to escape evil things and to live within society, to be with hope in times of difficulty. God helps me live with my brothers and love them, even though they don't all have good souls and Satan makes them do wrong. Those who hate me, I share my love, I don't hate back. I don't judge, I let my God judge. All people here in Mazumbai are religious, but they don't all give or breathe it with all their soul. My father and brothers are Lutheran, but me, I am Pentecostal. When I say I am religious, I mean I worship God with all my soul."



Mantogolo Yambasi, elder, doesn't remember her age

"All my life I have been a farmer, but now my old age now prevents me. I have one child, he lives here in Mazumbai as well, my only child. When he was a kid, I tried my best to raise him well, until he went to school, until he married, and now he helps me, I depend upon him. Farming supported us very well in past times, we had very high productivity. So I did not go to school at all, I am illiterate. I have one sister, my other siblings died when young, and she didn't go to school either. There was no need, people did not know the importance of education. But that has changed and people see that the ones who get an education are the ones able to develop their lives. Now education is very expensive and difficult though, special for those who can afford it. In the past, you could sell a cow and finance sending a kid to school. One cow was enough to pay for education, school fees were so low. And in the past we had very many livestock: 9 cows, 5 sheep, 10 goats, livestock provided much money. This change in education is positive though, education helps people support life and improve their standard of life."

Efforts to **Diversify Income**

While lack of education does close many doors, people still work to find ways to diversify their income in hopes of a better, more sustainable standard of living. Most everyone recognizes that business beyond just agriculture often provides more reliable income and a better life. The problem many people face is never having the opportunity nor enough capital to start another form of business. As with education, those able to exploit the benefits of other business are often able to develop further with more investments. Those who do secure these other means of income still do practice some agriculture, at the very least for subsistence, but often equally for profit. Going to a town, most commonly Dar es Salaam or Arusha, in search of more abundant employment options is another approach people take, aside from small business in the "rural nonfarm economy." This option is most common among people in the more recent generations, after they end primary school. Many people who return 'home' from the city are drawn back by the simplicity of life, favorable climate, ability to grow their own food, and familiarity of Mazumbai.



Haji Athman, 41 years old

"At 7am I open my shop in Sagara until 10am, when I journey to my tea farm fields to work. At 4pm I return home to open my shop again for the evening. There I sell oil, soap, sugar, tea, *dagaa*, some simples foods and household items. Business is good, between my kiosk and tea operations I am very happy with what I make. The business pays a little more than tea, but differently - tea they collect twice per week, while business is more consistent every day. I started the shop in 2008 with money I earned from tea sales. My parents were tea farmers, but they had many children so there was not enough land for agriculture to divide among all of us. So it was necessary to add a different source of income. Some of my brothers are also businessmen with their own shops, we compete for business, but *hamna shida* (no problem), we work together too. One day, once I have enough capital, I would like to move to town and start a shop, maybe in Arusha. Medical facilities and schools are better in town compared to rural areas like here because there is both public and private. The goal is always to improve, develop, and move higher up."



Christopher Walisha, 52 years old

"I have been a forester for 11 years now. The people of Mazumbai and Mr. Kiparu (the manager of SUA Forest Reserve) chose me as one to protect the forest. They met to appoint guards for the forest because of its importance right here near town. There is a strong link between the forest and the community. The people help to protect the forest, we are all dependent on it as it helps get enough rainfall for farming. I patrol the forest in the mornings, some days alone, other times escorting guests. We protect and conserve the forest and prevent people from illegally exploiting it. After returning from the forest each day, I also practice farming. I have three fields, growing beans, maize, tomato, sweet potato, and tea. These things together, farming and forest guiding, work very well. Farming provides us with food to eat, and guiding provides money for other things. I hope in the future to increase my involvement and investment in agriculture as well. I want to buy a plot to employ someone to grow oranges near Tanga, this with money I have made from work as a forest guide. The market for oranges is so big, even outside of Tanzania, in Kenya."



Alhaji Hassan, 29 years old

"I am a painter for profession, painting houses and school buildings, but still I also work in the tea fields too. Somedays I am here with the tea, other days I paint. I started painting about ten years ago. I had stopped primary school, I didn't like it, it was very difficult. I was just doing agricultural activities with my parents. They told me, "this life we have, you must change it, better for you to find other work." Some older friends were painters and they convinced me to start coming along with them. So I began following them and they gave me training, I would assist them painting. It was very practical, they would tell me 'do this, stir the paint,' I learned through experience, never went to school anywhere for painting, I am very glad for painting now, it pays much better than tea, through my work I am building my own house. Tea can be done in just this area, but paining you can apply anywhere and survive. Like Dar es Salaam, you cannot grow tea in Dar, but there are houses and you can paint."



Alfred Julius Mhema, 37 years old

"I am a businessman and a farmer. I own this little store here in Mazumbai, selling many little things, domestic needs: wheat flour, sugar, cooking oil, soap, candy. I also have five farm fields. My parents were farmers, but I decided myself it would be better to start a business. After finishing primary school here in Mazumbai, I went to Dar for 10 years to work. I sold some foods, chips, and milk on the street for someone's business. After getting enough capital, I returned here to the place of my childhood to start this business. My father was also handing down his farms and there was no one here to inherit and care for them. Now I have assistance balancing farming and my shop. After returning from school, my daughter is able to stay at the shop in the evening while I work in the fields. Businesses and farming are two different things. My store I like because it provides me with money everyday, it is consistent, while farming takes many months. But opening this shop was an investment, with business you experience both things: gains and losses. At first, I did not have direct profits with this business. But now I have improved and these profits help me send my kids to school, pay wages for help farming, and open other businesses. More recently, I have also started selling alcohols here, in Sagara, and Mgwashi. Business is very good, I hope to start more and have a bigger business, like a pub. I also want to make sure my children each have a business they can run when grown up, after they go to secondary school and college first. But I can never stop practicing agriculture. Because as soon as I do, I must buy food all the time."



Wilson Msangula, 30 years old

"My education ended after primary school. My parents did not have the money for me to get further education. Shortly after stopping school, I went to Dar es Salaam in search of a job. I was 23 years old. For a year I was working there in the iron industry. I worked as a store keeper selling spare parts, it was very, very tough work. The salary was bad, worse than working and selling tea here. And I didn't like living in the big city at all either, life was very difficult, everything you want, you must buy. Tanzania's economy is lacking compared to other, developed countries, we need to improve our industries. So after that year of work in Dar, I moved back here and have built my own house here nearby my parents. Now we all share these tea farms, mama, aunts and uncles, other relatives. And we all share the profit, if someone wants to pick the leaves, then they receive the pay. I also keep some livestock. I would like to start a business, open a small shop, but I would need more money. Shortage of money is a big problem for us, we are only buying small things like food, little by little. It is really not enough to support us."



Jackson Walisha, 30 years old

"I was forced to stop school after primary school, so then I went to Dar es Salaam in search of work. The economy of Tanzania is very poor, it is difficult. I was selling shoes walking the streets of town. I had no storefront, I was one who carried my product and looked for buyers. Once I made some money, I built a very small building to sell from. But shortly after, it was destroyed due to an order from President Magufuli to take away all buildings that did not meet code. So then I returned after just one year. I plan to start a business selling clothes in the future, but I will never stop farming. And I will go to a different town, maybe Arusha because it has a better economy. In town, transportation there is so easy, energy/power supply is plenty in town, and also social services are so close and accessible. But you must pay for everything. I don't need to be very rich, I just want enough to support my life and family, to build a house and send my kids to school."



Anuari Omar, 30

"I have lived in Dar es Salaam for sometime, but ended up returning home. My family has lived in Kizanda for many generations, and now I live there with my parents, wife, and two kids, a three year old and a one year old. It was 2016 when I was living in Dar, working for business selling tomatoes and also helping to build houses. There are many more job opportunities there. I went just to see if living in town was a better life, how living in a city is versus staying in the rural areas. I stayed only for 6 months and quickly discovered that I like it here better, as a farmer. Being able to grow your own food is so important to me - in town I was buying all my food. In rural areas, food is accessible and abundant. School fees are also high in town compared to here. So I learned it is better for me to come home and continue being a farmer. Now I have five small plots, each about a quarter acre, with a different crop. Farming is better nowadays, people have adopted modern methods using fertilizers and manure. There is sometimes heavy rainfalls paired with long droughts that are challenging for us farmers, then crops are not growing well. But to be happy, I just take things as they are in life."



Naomi Suffian, 27

"Now I live in Kizanda with my grandmother. When I was 21 years old, my parents died from disease. Shortly before that I went to town to learn to be a tailor, I was living there in Dar. My uncle convinced me to go, I had always wanted to be a tailor. The training was very observational and practical. I worked with someone and they taught me as we went. We were making special dresses for women. I didn't stay for very long, only one year. I was also working at a small stand selling *mandaze* (doughnuts) to make money, but still I did not have enough to stay and continue training, nor buy machines. I hope to try again in the future, making dresses, skirts, and shirts for women, but maybe around here instead. In town there are good and many social services and transportation options, but it is very hot and expensive. Now I am here supporting my life through farming: maize, beans, cassava. Just using local techniques, using my hands, and no fertilizers. My mother taught me farming, and now I have the same three fields that she farmed."

Conclusion

Together, these profiles tell the more comprehensive story of the livelihoods of the people of Mazumbai. While it surely cannot cover every perspective and experience, this collection of profiles reflects some of the most important components. These stories are about the people, how they make lives for themselves in the area, and how the area provides ways of life. These are also stories about the challenges in their lives, the obstacles and limitations they face in sustaining their livelihoods. These stories are about the changes the people are seeing in Mazumbai and how they are affecting their lives, from the increase of importance in education to the impact of climate change on agriculture. Through the interview process, it quickly became apparent that everyone has something meaningful and interesting to say. It just requires taking a moment to sit and listen with attention, curiosity, and an open mind. Even from the most ordinary parts of one person's life, there is an opportunity for insight and learning for another. And hopefully these stories have created just that opportunity.

These stories also create an 'opportunity for insight' specifically into the livelihoods of a community of smallholder farmers: the people of Mazumbai. This collection of profiles reflects the challenges and vulnerabilities of their livelihoods, but also the wider population of smallholder farmers forming their own lives across Tanzania. From these findings, farther-reaching implications can be made regarding what is necessary to increase the sustainability of rural livelihoods. The story begins with how completely central agriculture is to their livelihoods, and the nation as a whole. The dependence on soley agriculture for both subsistence and income, combined with other factors such as poverty, make this population's livelihoods very vulnerable, and threatened by climate change. A lack of access to higher education creates a vicious cycle where it is often hard to gain the mobility to change life as a farmer. Therefore, increasing access to education in rural areas is the key to opening options for improving the quality and sustainability of rural livelihoods. Despite the obstacle of education, many people still make efforts to secure more diverse, sustainable modes of income. These stories highlight how diversifying income is increasingly a response to the threats of climate change impacting these individuals' lives. Future studies comparing the livelihoods of multiple villages would provide a valuable, more holistic picture of rural livelihoods across Tanzania.

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APPENDIX: Interview Questions

General/Economic Qs

- 1. Where do you live and with whom?
- 2. What do you do for a living?

3. If your primary source of income is farming, what methods or techniques do you use for farming? What creates the best results/harvest?

4. How much and what crops do you sell compared to keep and eat yourself?

b. Where do you sell your products?

5. Are there any other things you do to add to your income?

6. Are you happy with the amount of money you make? Is it enough to support you and your family?

- 7. What do you spend the money on?
- 8. What foods do you buy? What foods do you grow for yourself?
- 9. If you made more money, what would you use it for?

Domestic Questions

10. What domestic activities does everyone do at home, men versus women?

11. Could you describe your schedule and what you do in a typical day?

12. Were you born in this village? What were the reasons for your family or you migrating to this area?

- 13. What do you like most about living here in this area? What do you dislike?
- 14. Could you describe the Mazumbai community and the people who live here?
 - b. What challenges does this area face?

15. What changes have you seen in this area over your lifetime? These changes could be environmental, climatic, economic, social, etc.

- 16. How have these changes affected you and your life? What changes have you made?
- 17. Have you lived in town before, like Arusha or Dar?

b. How is life different living in rural areas like here?

18. Do you see differences in social services such as education and medical facilities in rural areas versus cities?

Life Story Qs

19. When you were growing up, what did you want to be? What did you want for your life?

20. What event or change in your life has made a big impact on you? And how?

- 21. Tell me about your education growing up.
- 22. Tell me about your life since the end of school.
- 23. How is religion important to your life?

Emotional Qs

- 24. What is your biggest struggle or challenge in life right now?
- 25. What do you think the biggest problem Tanzania as a country has right now?
- 26. What are you most grateful for in life right now?
- 27. What is most important to you to have a good, happy life?
- 28. What is one thing you wish or hope for in the future?
- 29. Who has been the biggest inspiration or influence in your life?

Forest Guide Specific Qs

- 1. Where do you live and with whom? Who in your family also lives in this area?
- 2. Were you born in this village? What were the reasons for your family or you migrating to this area?
- 3. How long have you been a forest guide?
- 4. Why did you decide to become a guide?
- 5. How did you get the job as a forest guide?
- 6. Tell me about what your job is like as a forest guide.
- 7. What do you like most about being a guide?
- 8. How is the SUA Mazumbai community for you? What is it like working with everyone here?
- 9. What are the biggest challenges working as a guide?
- 10. What education and training have you had before becoming a forest guide?
- 11. As a forest guide, what special knowledge do you have about the forest?
- 12. Did you go into the forest as a child?
- 13. Can you tell me a story about the forest?
- 14. Do you think there is a need to conserve the forest? Why is the forest important?
- 15. What conservation efforts do you make while at work in the forest?
- 16. How are the people of Mazumbai connected to the forest? What ways do they/you interact with the forest?
- 17. Financially, how does work as a forest guide support you? How does it compare to farming?

18. If you also farm, how do you balance your two jobs? How has that changed over the past years?

19. Are there any other things you do to add to your income?

20. Are you happy with the amount of money you make? Is it enough to support you and your family?

- 21. What changes have you seen in this area over your lifetime? These changes could be environmental, climatic, economic, social, etc.
- 22. Have you lived in town before, like Arusha or Dar?
 - b. How is life different living in rural areas like here?