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CGIAR CCAFS

Info Note

Youth Decision Making in Agricultural Climate Change Adaptations

Research findings from East Africa

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Key messages

- East African youth involved in agriculture have an understanding of the impacts of climate change and how to appropriately adapt their agricultural practices in part because extension services have been successful in providing appropriate training for youth.
- However, lack of access to financial capital, limited land ownership and difficulties accessing agricultural inputs are the primary barriers limiting youth participation in the agriculture sector.
- Decision making power of youth in agriculture is contingent upon their education and experience and also varies depending on age, gender, and marital status.
- Although policymakers and stakeholders value the opinion of youth, involvement of youth in policy making is indirect and limited.

Introduction

Africa boasts the world's most rapid population growth, and is concurrently experiencing a "youth bulge" – an expansion in population of tech-savvy, well-educated, job-ready 18-35 year olds (Population Reference Bureau, 2013). In some cases, a growing youth population is a positive indication of a country's development, and can be beneficial, as long as the majority of youth are sufficiently employed and contribute to the economy. However, employment can be difficult to find when the job seekers are many and the options are uncertain. The East Africa region is experiencing this "ticking time bomb" at the country level (Ighobor, 2013) within Kenya, Uganda, and Tanzania, with a nagging fear that youth unable to find work may create political and economic instability, resulting in violence (UN, 2013).

According to the Youth Development Index (YDI), Kenya is well developed to support its youth population, compared to Uganda and Tanzania. Although it is still ranked "Medium" for the status of young people with a YDI of 0.563, Kenya demonstrated the largest growth in the YDI globally (22%) between 2010 and 2015. Similarly, Uganda has a YDI of 0.544, but supersedes Kenya in the area of employment, with a score of 0.613 compared with Kenya's 0.513. Tanzania lags far behind both of its neighbors, with a "Low" YDI of .436, and an employment index of 0.294 (Commonwealth Secretariat, 2015).

The growing youth population and a stagnant job market in Kenya, Uganda, and Tanzania correlate with a bleak employment outlook. In Kenya, of those who are unemployed, over 70% are under 35 years old. Youth account for two-thirds of Kenya's population, and the rate of youth who are unemployed may reach as high as 35%, compared to 10% nation-wide (BCtA, 2016). In Uganda, of those who are unemployed, 64% are 24 years old and under (World Bank, 2015). In Tanzania, unemployment averages 13.4% for 15-34 year olds (Youth Employment Decade, 2015). The limited options do not appear to discriminate; youth are simply trying to find a place for themselves, wherever they qualify, whether it is urban, rural, business or farming.

Agricultural livelihoods are vital to East Africa, with much of the region's GDP dependent on agriculture and with arable lands prime for both subsistence and commercial farmers. However, this relationship to agriculture can be risky; in times of success, it provides employment and food security, and in times of misfortune, it contributes to pervasive poverty and malnutrition. For Kenya in particular, 75% of the country's workforce is in the agricultural sector, contributing to 25% of the country's GDP, despite only 20% of the land being arable. Kenya's dominant areas of agriculture are horticultural produce and dairy, which have opportunities to expand; yet Kenya's agricultural productivity has been stagnant in

recent years. For highly arable Uganda, agriculture employs 66% of its labor force, comprises 50% of its exports, and creates 23% of its GDP. The dominant crop for food security is maize, followed by beans, with coffee being the main export, although Uganda has suffered heavy harvest losses in recent years. For Tanzania, while 75% of its population is involved in agriculture, the sector contributes only 31.5% of its GDP. Despite the fact that Tanzania is largely self-sustaining in the staple crop of maize, it lags far behind global average maize yields (Feed the Future, 2016).

Although farming is a common livelihood, it is a risky one, with climate change as one of the contributing factors. Farmers in Kenya, Uganda, and Tanzania are heavily dependent on rainfall, and therefore highly vulnerable to inconsistent weather events, such as droughts, floods, intense heat, and severe cold. Such extremities and uncertainties have a negative impact on agriculture, thwarting the involvement of young people.

The status of a burgeoning youth population in East Africa, precarious employment opportunities, and the alteration of traditional agricultural practices in the face of climate change has prompted the need to explore the role of youth in adaptive farming practices; specifically, the extent of their decision making power in agricultural adaptations to climate change. This information is critical to understanding the future of agriculture and youth in Kenya, Uganda, and Tanzania.

Methodology

This note explores the findings from the research project "Youth Decision Making Power in Agricultural Adaptations to Climate Change" conducted in June – July 2016. For the purposes of this project, "East Africa" included Kenya, Tanzania, and Uganda, and the definition of "youth" was between 18 and 35 years old. Each of the countries has a National Youth Development Policy with defined strategies for youth development in various economic sectors.

Figure 1. Female youth farmer focus group in Wote, Kenya. Photo by K. Amsler, June 2016.

Data were collected in three CCAFS climate smart villages (CSVs): Wote, Kenya; Hoima, Uganda; and Lushoto, Tanzania. At each site, focus group discussions (FGDs) and case study interviews were conducted with youth between the ages of 18-35 years old. All sessions were divided by gender and included youth who were involved in agriculture as some facet of their own, or their family's, livelihood. Half of all case study interviews were conducted with males, and half with females (Table 1).

Policymakers and stakeholders were interviewed individually in Nairobi, Kenya; Dar es Salaam, Tanzania; and Kampala, Uganda to understand their views on youth involvement in decision-making on issues related to climate change and agricultural adaptation, including representatives from national ministries, research institutions, finance institutions and NGOs in each country.

Table 1: Numbers of case study interviews and focus group discussions

	Kenya	Tanzania	Uganda
No. of youth case study interviews	2	4	3
No. of youth FGDs	4	6	5
No. of youth FGD participants *Male* *Female*	34 *17* *17*	72 *33* *39*	49 *29* *20*
No. of policymakers interviewed	4	8	4
No. of stakeholders interviewed	9	12	5
Total no. of individuals interviewed	47	92	58

Youth in Agriculture in Wote, Kenya

The dominance of agriculture and lack of formal employment opportunity in Wote corrals youth into farming, regardless of whether they prefer it or are trained for it. With dedicated extension officers, frequent training opportunities, and climatic and edaphic factors that are conducive for citrus trees, farming in Wote would seem ideal. The main problem is lack of water. This is due to weather patterns yielding infrequent and unpredictable rainfall and lack of resources to tap the groundwater. One non-farmer interviewed explained that he would happily go into farming, if only there were water.

Having been raised in a farming community, Wote youth are well aware of what climate change is, and how it personally impacts them. The constraint faced by youth is not how to adapt, but with what? There are myriad resources and techniques meant to assist in this new era of farming provided by Wote's extension officers, who are supported by the Kenyan government. These include adaptations such as shade cropping, improved seeds, soil conservation structures, crop rotation, and encouraging

the growth of drought-tolerant crops, which have a shorter growing season of 2-3 months (e.g. sorghum or sweet potato) compared to the traditional dietary staple, maize, which requires heavy watering over a lengthy growing season of 5-6 months.

Wote's extension officers are directly involved with the community to educate farmers on how to best adapt to the recurring and persistent drought. Kenya's county governments disseminate information to extension officers, and these extension officers are responsible for sharing with their respective constituents. Interview participants stated that training on the aforementioned techniques and resources are helpful in educating them in adaptive farming. The interviewed youth acknowledged that their presence and involvement is welcomed and appreciated, and they feel equipped to communicate what they learn at the household and community levels. Therefore, they are pleased with the training offered, but need the resources, water, and financial capital to implement and sustain the adaptations about which they are learning.

For the youth involved in farming, it is their knowledge and experience gleaned from the training provided, as well as their successful harvests, that earn them respect at the household, and often, community, levels. Regarding the household level, participants in focus groups explained that they are often part of the farming conversation with their parents; although they may not have the final say in what happens, their parents take their voice into account. Regarding the community level, a female young farmer interviewed for an in-depth case study has had continual success with her farm due to the training and the funding she has received, and she explained that her success is the reason she is well-respected in the community. She reported that many of her family and neighbors come to her for farming advice. However, the extent of this input for any farming related decision (crop, livestock, what to plant, where to plant, how to plant, what agricultural adaptations to make, when to sell the surplus, among others) can vary with family dynamics. For example, if a young person is single and lives with his or her parents, it is the parents (usually the father) who make the final decision. A married man holds decision making power, and he can choose to share that decision-making power by consulting with his wife, or with his parents, if they live nearby. This indicates that a married woman has partial input, since her involvement is usually in the form of consultation with her husband or her in-laws. Therefore, a married woman's decision making power is diluted in comparison to a married man's, because the married woman has multiple people involved in the decision-making process, and she is not the final decision maker, compared to the married man. However, if the woman is married, but the husband is not present, she holds the decision-making power.

Figure 2. Male Youth on his Farm in Wote, Kenya. Photo by K. Amsler, June 2016.

These family dynamics directly influence land ownership and land utilization. Youth agreed that the landowner is the ultimate decision maker in land utilization, and cultural dynamics dictate how much and when land is owned, purchased, gifted, or inherited. Some married women explained that their in-laws gave a portion of land to them, and that portion would increase in accordance with the longevity of their marriage. Other youth explained that their parents would gift them land as an inheritance, but would divide it equally amongst all siblings, leaving each a very small (and not very commercially viable) portion of land. The youth interviewed made it clear that land ownership was critical in holding ultimate decision making power, but noted how difficult and expensive it was to acquire land initially, and this varied with age and gender.

This juxtaposition of the importance of owning land but not being able to afford it revealed the many nuances of government funding for youth. Those interviewed were aware that a specific fund was introduced by the Kenyan national government in 2014 (Youth Enterprise Development Fund) to support youth enterprise among minority populations and their entrepreneurial ventures, and they were quick to explain that while this fund has been made available to them, it is not easily accessible. They explained that the application process is far too technical and difficult, the loan payback is daunting, the applicant pool is large and broad, and the loan stipulations are impractical. Transparency is also an issue, as the youth perceive inequity and corruption in previously awarded funds.

In summary, the findings show that training and information are helpful, but for them to be entirely effective, youth would greatly benefit from access to financial capital and provision of resources, such as water, land, and agricultural inputs, in order to implement the agricultural adaptation strategies about which they are learning and on which they are empowered to make decisions.

Kenya Policymaker and Stakeholder Analysis

Policymakers and stakeholders interviewed in Nairobi have very positive opinions regarding Kenyan youth; they are quick to say how critical the educated, tech-savvy, youth voice is, and that they are willing and interested to involve youth in their decision-making processes. One interviewee suggested that this positive perception is due to the fact that the youth population will be the most affected by climate change in the future, thereby necessitating their involvement in climate change matters. In fact, many policymakers and stakeholders involve a variety of youth in their work, but the extent of that involvement varies by organization; some simply hold forums that are open to the public which youth are welcome to attend, whereas others act specifically in the interest of the youth, conducting workshops and training sessions, speaking at conferences, teaching classes, creating mentorship programs, or even hiring youth employees. Since youth are not adequately represented at the policy level, stakeholders, such as youth-centered organizations, are working hard to make their names, innovations and ideas known from grassroots levels, in the hopes of influencing policy at the national level.

From the interviews conducted, it is clear that policymakers and stakeholders themselves have an understanding of what climate change is, and how Kenya's farmers can adapt to its various effects. Policymakers and stakeholders interviewed believe that youth have personal knowledge of what climate change is, but that they do not know how to adapt to it. Our findings from the FGDs negates this latter belief, and recognizes that young people do know how to adapt their agricultural practices via training and education; however, they do not always have the resources to be able to implement everything they have learned. In addition, policymakers and stakeholders are quick to reference the Youth Enterprise Development Fund, but acknowledge barriers to its accessibility.

Youth in Agriculture in Lushoto, Tanzania

The young farmers in this research demonstrated how Tanzania's traditional social norms greatly impact youth decision making power at the household and community level. This divide seemed to occur at the time of marriage,

Figure 3. Female focus group participants, Lushoto TZ. Photo by C. Hein, June 2016.

where, between the ages of 18-35, Tanzanian youth in Lushoto get married and establish their own households. It is during this period in which they transform from children who must listen to the "baba" (father) into heads of their own households.

This transformation is particularly dramatic for males, who go from being subservient within their familial home to being the primary decision maker. Females, either pre- or post-marriage, are still limited to a subservient role due to their gender, but experience an increase in decision making power after they are married. The young women noted that within marriage, they are part of a team that leads the household, transforming from the role of a daughter who must obey her parents.

Much like the change in decision making power at the household level, this increase in social standing occurs at the community level as well. Since whoever owns the land makes the decisions, once a youth owns land, his or her decision-making power increases. In this study, the majority of participants in focus groups reported that their parents gave them a parcel of land to work as their own; as early as 10 years old for males and 14 years old for females. However, this land given early in life is still the property of the parents, and as such, they do not keep the produce or money resulting from the labor, or make any of the decisions. A caveat to these findings is addressed below.

Those interviewed aligned with the general perception that East African youth are more educated and tech-savvy than any previous generation. Additionally, extensive CCAFS involvement and extension officer work in Lushoto have given the youth access to the educational components they need in order to connect observed changes in their environment with tangible climate-smart agricultural practices to implement. These training sessions are primarily held by government employees

and the International Center for Tropical Agriculture (CIAT) and cover topics such as soil retention, irrigation, and utilization of improved seeds and fertilizers. It is this education component that can shift power structures of cultural norms, gender, or age. While individuals with traditionally-based decision-making power maintain the "final say" in adaptations to their agricultural practices, youth input and ideas are considered in this process, with the understanding that they have additional knowledge. The barrier for youth, then, is not their decision-making power; the inputs they are trained to use are expensive or inaccessible, rendering any training and advice unfitting in a localized context. In addition to the barriers of land ownership, financial capital, via loans or savings, are lacking in the hands of youth farmers, greatly limiting their ability to apply what they have learned.

The primary concerns of youth in this rural agricultural setting are how to obtain inputs and achieve land ownership. They are aware that the Tanzanian government has programs targeting youth in agriculture, but lack specific information and are unsure how to access them. They often see the extension officers in their community, but the extension officers prefer to speak directly to the "baba" (father) head of household, or if he is not available, the "mama" (mother), and rarely speak to or seek out youth directly. Despite fulfilling the stereotype of an educated and tech savvy demographic, the young people interviewed expressed frustration about limited access to inputs and infrastructure.

Tanzania Policymaker and Stakeholder Analysis

The Tanzanian government officials and stakeholders interviewed understand climate change and the importance of including youth in agricultural adaptation measures. In every interview, policymakers and stakeholders stated they consider youth to be the future, and thus a crucial component in any environmental planning and activity. Although each interviewee asserted that there are ways in which youth can become involved via conferences, internships, advisory boards, etc., it was unclear how such youth are selected, and what the extent of their involvement is.

Despite the current state of youth involvement, policymakers expressed strong interest in engaging them directly, and have them in mind when considering new proposals and policies. Stakeholder organizations, however, ranged from having very limited or no youth involvement to being entirely comprised of young members. The flexibility of stakeholder status, whether it is a research institution or an NGO, enables the organization itself to dictate the level of youth involvement without the same constraints as a policymaker. Therefore, while youth may be involved with stakeholders, it is often those stakeholders who act as their representatives that work directly with policymakers.

Youth in Agriculture in Hoima, Uganda

In Hoima, farming is the dominant livelihood, fostering a population with personal understanding of climate change and its effects. The young people interviewed reported that they are more aware of changes in the environment within the last five years, and expressed their thoughts on how climate change is the cause of both drought and heavy rainfall at unpredictable times and lengths, making it difficult to know (let alone depend on the routine practice of) when and what to plant. Periods of drought lead to poor harvests, while times of heavy rainfall can lead to crop rot and over-production, leading to post harvest losses.

Participants were asked about their knowledge of climate change and climate change adaptation measures. Education in regards to adaptation comes from the National Agriculture Research Organization (NARO) and the National Agricultural Advisory Services (NAADS). NARO and NAADS hold training sessions in Hoima, where they teach farmers the adaptation strategies necessary to deal with drought and heavy rainfall. These organizations discuss the use of improved seeds, spraying pesticides, and agroforestry. Despite the fact that the young farmers are ready and willing to implement these strategies, access to financial capital is problematic. The youth are aware of funding initiatives, such as the Youth Venture Capital Fund, through loans specifically aimed at youth for starting group businesses. But the majority expressed frustration regarding the complexity of receiving said loans. These frustrations come from the bureaucratic application process and the struggle to meet the guidelines necessary to be in the applicant pool to begin with (such as forming a group of 10-15 members and putting together a strategic business plan). In the advent of receiving funding, many youth expressed fear of not being able to pay back the loan, noting interest rates exceeding 20%. In addition, there were complaints about corruption, and comments that government employees awarded the funds to their friends and those above the age requirements, older than 35.

Those interviewed show an educated understanding of and personal experience with climate change, as well as satisfaction with the training they are receiving. But even with education and training, there is little that youth can do; their decision-making power is limited. The majority, men and women alike, concurred that if they are living at home with their parents, the father is the one most likely to make the final decision. If the father is not available, then the decision defaults to the mother. In the men's focus groups, the consensus revealed gender binaries; the men perceived the husbands as the decision makers, as opposed to the women's focus groups, where the

consensus was that decisions are made as a family. This reflects discrepancies between the genders of perceptions of decision making power at the household and community level. Ultimately, men and women agree that experience, age and education are critical components of decision-making power at the community level, even though the men remarked that men should still be making the decisions.

Uganda Policymaker and Stakeholder Analysis

Like the youth in focus groups, policymakers and stakeholders are aware that a youth fund exists within the Ministry of Gender, Labor, and Social Development (MGLSD), but agree that its availability and accessibility are limited by the complexity of the application process. In addition to funding, interviewees remarked that youth services in general are missing (MGLSD is the organization responsible for the youth livelihood fund and youth services). Some youth do not have the skills or knowledge to create a business plan, whereas others have difficulty meeting the requirements of the loan, such as the prerequisite level of education, or maintaining a cohesive and long-standing group.

When asked about youth decision making in regards to climate change adaptations, the majority of policymakers and stakeholders explained that efforts are being made to increase knowledge around climate change; although some efforts include young people, they do not target youth specifically. The only youth-specific initiative is the Youth Farmers Coalition, an NGO which encourages youth involvement in policymaking to increase advocacy for young farmers.

Conclusions

The young people who were interviewed in Kenya, Tanzania and Uganda demonstrated an understanding of climate change and its impacts on agricultural productivity. They reported having mixed decision-making power at household and community levels, dependent on land ownership, experience, and education. The primary agricultural concerns of youth in the sites visited are lack of financial capital, lack of land ownership, and lack of agricultural inputs. These deficits hinder the ability of youth to implement the adaptation strategies they have learned, thereby limiting their decision-making power at the household and community levels. Youth explained that the current provision of training and information on agricultural adaptations to climate change is sufficient for their farming communities, but the lack of resources prevents their ability to follow through.

Despite programs at the national level that offer loans, youth were quick to note that accessing this funding is not feasible, due to lack of transparency and complex bureaucratic requirements. Even if they are able to navigate the system and apply for funding, it is awarded to a small number of applicants.

Policymakers and stakeholders interviewed agreed on the positive, critical importance of youth involvement in decision-making and consider they have valuable insights to contribute to policymaking and programming. However, findings show that direct youth participation in these processes, such as internships, coalitions, or advisory committees, is limited.

In Kenya, the primary concerns of the stakeholders and policymakers are that young people have an understanding of climate change, but do not know how to adapt to it. This belief is in contrast to our findings amongst the youth which acknowledge that they understand both what climate change is and how to adapt to it, but simply do not have the ability to do so because of constraints (such as lack of access to financial capital and agricultural inputs). We suggest that this contrast arises since policymakers and stakeholders cannot see youth implementing the knowledge they gain from training; they attribute this to lack of understanding as opposed to lack of resources.

Policymakers and stakeholders in Kenya also acknowledge that the opinion and involvement of youth is crucial, but direct participation and funding for youth is limited. Policymakers and stakeholders are quick to recognize that funding is available through the government and various organizations, but difficult for youth to access in reality.

In Tanzania and Uganda, the primary concern of stakeholders and policymakers is how to empower youth in the current economy via education initiatives and provision of necessary resources, in order to present farming as a viable livelihood.

Overall, policymakers and stakeholders are concerned that current population growth is contributing to a “youth bulge” in East Africa, and their rhetoric aligns with the desires of the youth themselves. Unfortunately, this appears to be little more than rhetoric, given the relative inaccessibility of government funding and lack of initiative to actively include youth in national level decision-making.

Further Reading

- Amsler K, Hein C, Klasek G. 2015. "New Skills or Access to Resources: What Do Young Farmers Need Most?" *CGIAR News Blog*. CGIAR Research Program on Climate Change Agriculture, and Food Security (CCAFS), 15 July 2016.

- Government of Kenya. 2002. Kenya National Youth Policy. http://www.youth-policy.com/Policies/Kenya%20National%20Youth%20Policy.pdf
- United Republic of Tanzania. 2007. National Youth Development Policy**.** http://www.tanzania.go.tz/egov_uploads/documents/fsssssssss_sw.pdf
- The Republic of Uganda. 2001. The National Youth Policy. http://www.mglsd.go.ug/policies/Uganda%20National%20Youth%20Policy.%202001.pdf

References

- Business Call to Action. 2016. *Tackling youth unemployment in Kenya through public-private collaboration.* The Guardian.
- Commonwealth Secretariat. 2016. *Global Youth Development Index and Report*. Retrieved from http://cmydiprod.uksouth.cloudapp.azure.com/sites/default/files/2016-10/2016%20Global%20Youth%20Development%20Index%20and%20Report.pdf
- Feed the Future. 2016. *Feed the Future.* Retrieved from https://www.feedthefuture.gov/
- Ighobor, K. 2013. *Africa's youth: a "ticking time bomb" or an opportunity?* United Nations *Africa Renewal* Magazine.
- Population Reference Bureau. 2013. *World Population Data Sheet* (Data file). Retrieved from http://www.prb.org/Publications/Datasheets/2013/2013-world-population-data-sheet/data-sheet.aspx
- Youth Employment Decade. 2015. *Youth unemployment, national priority in Tanzania*. Retrieved from http://www.youthemploymentdecade.org/en/repor/youth-unemployment-national-priority-tanzania/
- World Bank. 2015. *Empowering Uganda's youth to be job creators.* Retrieved from http://www.worldbank.org/en/news/feature/2015/08/04/empowering-ugandas-youth-to-be-job-creators

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