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The KENYA INSTITUTE for PUBLIC POLICY RESEARCH and ANALYSIS

Status of Access to Agri-Finance by Youth and Women in Kenya

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(KIPPRA)

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Selected Glossary of Terms

Agricultural finance: Provision of multiple types of services dedicated to supporting both on- and off-farm agricultural activities and businesses including input provision, production, and distribution, wholesale, processing and marketing.

Formal (prudential): Financial services used through prudentially regulated service providers and are supervised by independent statutory agencies (CBK, CMA, IRA, RBA and SASRA).

Formal (non-prudential): Financial services through service providers that are subject to non-prudential oversight by government departments/ministries with focused legislations or statutory agencies.

Formal (registered): Financial services through providers that are legally registered and/or operate through direct government interventions.

Informal: Financial services through forms not subject to regulation but have a relatively well-defined organizational structure.

Excluded: Individuals who report using financial services only through family, friends, neighbours or keep in secret places.

Mobile phone banking / m-banking: Mobile phone-based banking services and products offered by commercial banks such as KCB mobi loan, Timiza, HF Whizz, M-Coop Cash, M-Shwari, Eazzy loan, and T-Kash.

Mobile money: Mobile phone financial services offered by a Mobile Network Operator.

EXECUTIVE SUMMARY

Agriculture is the backbone of Kenya's economy, directly contributing 34.2 per cent of the annual GDP and another 27 per cent indirectly (KNBS, 2019). The agricultural sector is yet to fully exploit the potential of the youth, and the sector has remained largely unattractive for them. The major underlying issues affecting women and youth participation in agriculture include, but are not limited to: lack of access to land, lack of agricultural finance and insurance; lack of knowledge, skills and extension services; low adoption of innovative technologies; and lack of access to markets. It is with this background that this study seeks to establish the baseline on youth and women access to finance with an emphasis on agri-finance.

The findings are outline below:

Youth and access to agri-finance

1. The youth in Kenya have limited access to financial services and products. Only 21 per cent of the youth had access to formal prudential and formal non-prudential services and products. Most of the youth are excluded from financial services and products, specifically 59 per cent in the rural areas and 36 per cent in the urban areas.
2. The number of financial institutions giving agricultural loans constitute a small proportion of the institutions that provide loans. This including 10 SACCOs; 4 commercial Banks; and one micro-finance Bank, and 14 micro-finance institutions.
3. The number of youths living in rural areas are three times more the youth living in urban areas taking loans from institutions offering formal prudential and formal non-prudential services and products. Proportionately though, more youth living in urban areas (31%) access loans from formal institutions compared to youth living in rural areas (18%). Female youth living in rural areas (9%) access more loans compared to their male counterparts (6%). These youth usually take one loan each and the female youth above 20 years of age on average take more loans compared to the male youth.
4. Youth living in rural areas use 41 per cent (827,851) of the loans taken for agricultural purposes, compared to 27 per cent (114,726) for youth living in urban areas. Further, access to loans differs across gender, with female youth (243,704) in rural areas take more loans compared to their male counterparts (105,282). However, regarding amounts on average youth in urban areas have higher aggregate mean amounts (Ksh 51,166) than those in rural areas (Ksh 46,794). Furthermore, the aggregate mean amount of agricultural loans is higher for males (Ksh 62,007) compared women (Ksh 35,953).

5. The loans used for agricultural purposes are mainly borrowed from informal sources such as assistance/ gift from family/ friend and income from salary/ business**.** The age cohort 30 -34 living in the rural area had a wide range of agri-finance sources with income from salary /business as the most prominent 42 percent (male) and 27 per cent (female).
6. Loans borrowed for agricultural purposes are mainly used to meet day to day activities, and investment. This includes buying farm inputs and assets, expanding farms and diversifying agri-business activities. Notably, there are more female youth taking agri-business loans than male youth.
7. Liquidity is highlighted as a major constraint across the different youth age cohorts as to why they are not able achieve their main goal. In the rural areas, 88 per cent of males and 64 per cent of female youth aged 25-29 reported running out of money as the reason for not achieving the main goal, implying a disparity among this age group. .
8. The main reasons why the youth were denied credit were low savings and no credit history. In addressing the financing gap, youth prioritize speed, easy to access, affordability and reliability of fund when they look for loans.
9. The youth get financial information from their peers; this informs their decisions on credit, savings and insurance. Youth in rural areas use their own initiatives as sources of financial information while those in urban areas rely more on family/ friends. On level of awareness of credit sources, the levels of awareness increase with age in both the rural and urban areas. A larger percentage of the youth are also aware of savings products. Furthermore, the levels of awareness of savings products are higher in urban areas and lower in rural areas. Awareness on insurance increases with age both in rural and urban areas, with the male youth being more aware compared to their female counterparts
10. To access financial services and products, youth prefer to visit the physical location of the service provider. More male youth (77%) living in urban areas visit the physical location of the financial service provider for financial services compared to their rural counterparts, with SACCOs being the most frequented. Regarding the use of Automatic Teller Machines (ATMs), again it is the youth living in urban areas using this channel mainly due to the availability of ATMs in urban areas. Interesting to note is that at least 10 per cent of youth living in rural and urban areas interact with the microfinance institutions (MFIs) using their mobile phones.
11. Male and female youth in all the age cohorts in urban areas have better numeracy skills compared to those in rural areas. Over 48 per cent of the youth in both rural and urban areas were able to read and interpret the costs of mobile money transactions.
12. Financial literacy showed mixed results. Overall, for youth male and female, an estimated 60 per cent have no knowledge of Credit Reference Bureau (CRB). For financial numeracy, youth in age cohort 15-19 (over 46%) in both

rural and urban areas have higher ability to compute interest rates on loan facilities compared to other cohorts.

13. Access to various forms of collateral increases with age. Results show that female youth have access to various collateral items (15%) compared to their male counterparts (4%).

14. Agricultural production is the main activity for youth living in rural areas. Youth aged 30-34 living in rural areas are the most active age cohort and use agri-finance for agricultural production activities (505,906) and livestock trade in products (75,947). Specifically, more female youth are involved in agricultural production (21%) and livestock trade (22%); while the males agriculture producers (17%) and livestock trade (20%).

Women and access to agri-finance

15. Generally, 16 per cent of women have access to finance from institutions offering both formal and non-formal prudential services and products. 66 per cent of the women living in rural areas are excluded, compared to 51 per cent of those living in urban areas.

16. Most women living in rural and urban areas take one loan (588,720) with the age cohort 35-65 being the most active. This age cohort constitutes a third of women population taking loans. The number of women, access to loans for agri-business is higher for women in rural areas (1,150,016) compared to those in urban areas (147,804)**.**

17. The average loan amount taken for agricultural purposes was Ksh 9,109 - rural and Ksh 9,540 - urban with the age cohort 35-65 borrowing on average the largest amounts. Despite the area of residence, the rural population recorded a higher maximum (Ksh 439,000).

18. Women living in rural areas take agri-business loans mainly to meet their every day farm activities. Most of the loans are used to meet day to day farm activities, buy farm inputs and assets, expand their farms and diversify their agri-business activities. There are several reasons why women were denied credit, including low savings, which was the case for 20-24 at 49 per cent and women aged above 65 years (35%). Another reason for being denied credit was bad/no credit history especially for females aged 25-29 (30%) and those aged 30-34 (34%). Bad debt to pay off was also another reason for women aged above 65 and those aged 30-34. Generally, a larger percentage of younger females prioritize fast/easy access to finance compared to the more aged females and women when they are looking for finance.

19. The main source of financial information for women living in both urban and rural areas is family and friends, at an average proportion of 40 per cent, followed by their own personal decision, implying that communal channels of communication are critical for the information to spread among the female folk. Even when the proportion of *"chama"* ranks low, it is still implied because usually the members of the *"chama"* are usually friends and family

20. The levels of financial numeracy among women in urban areas are higher than those in rural areas. Women in urban areas in all age cohorts have more knowledge about Credit Reference Bureau (CRB) compared to those in rural areas. Those aged 30-34 (54%) in urban areas record the highest levels of knowledge about CRB compared to 24 per cent in a similar cohort in rural areas. Over half (50%) of the respondents were able to read and interpret the costs of mobile money transactions, implying financial literacy levels among them.

21. Women participate in all stages of the agricultural value chains. This includes in input supply (8%); production (23%); aggregation (15%). Where they provide services for different commodities at different stages. The proportion of women engaged at the different levels indicated that 31 per cent of the women are involved in marketing with 55 per cent of their consumers being individuals. Only 6 per cent of the women were involved in transport, 11 per cent in storage and 7 per cent in value addition stages of the value chain. This implies that there are opportunities to support women to participate in all stages of the value chain for different agricultural commodities in support of agricultural trade. However, further research is required to quantify and qualify the level of participation

22. Based on a study carried out in July 2018, the abbreviated Women Empowerment in Agriculture Index (a-WEAI) was 0.921 for 5DE score, 0.970 for GPI score and 0.925 for a-WEAI, **i**mplying that between 2016 and 2018, all three indices improved for Kenya, and that 74.5 per cent of women were considered empowered based on a-WEAI methodology.

Determinants of access to agri-finance

23. Several factors influence individual access to agri-finance. The results show that individuals who have accounts with a financial institution have a 39 per cent chance of accessing agri-finance. Education at tertiary level gives one a 7 per cent higher probability of access to agri-finance. Another determinant is wealth quintile; the higher wealth quintile increases probability of access to agri-finance by 4.3 per cent. Variables such as gender of individual, ownership of mobile phone, having savings, land ownership, marital status, cost to nearest financial provider, age and household size were observed not to have a significant effect on probability to access agri-finance.

'Big Four' Agenda

24. The "Big Four" agenda focuses on ensuring that the Kenya Vision 2030 targets are met. Two pillars are mentioned in this report, namely: food and nutrition security pillar and the manufacturing pillar. The emphasis is on the potential to support women and youth promoting and enhancing smallholder productivity under the food security and nutrition pillar. The target is to establish 1,000 small and micro enterprises using a performance-based incentive model along the value chain, in addition to improving access to credit/input for farmers through Warehouse Receipt System and strengthening of commodity fund. Under the manufacturing pillar, potential for support to youth and women in

agriculture lies in textile/apparel/cotton, leather, agro-processing and market access.

25. Towards achievement of these targets, the government has established various affirmative funds targeted at financing women, youth and people with disabilities in setting up small and medium scale enterprises. These funds include Uwezo Fund, Women Enterprise Fund, Youth Enterprise Development Fund and SME Fund. However, through the Presidential Taskforce on Parastatal Reforms, consolidation of these funds and initiatives was recommended to form Biashara Kenya as the principal SME agency. This followed recognition of the fragmented approach adopted in supporting, financing and developing small and medium sized enterprises particularly those owned and managed by youth, women and minorities.

Sustainable Development Goals

26. Financial inclusion has been recognized as an important driver to achieve various economic and welfare improvements. Furthermore, it plays an important role in enabling people to increase their income and expand business. Goal 1 and Goal 8 set the specific financial inclusion indicators: Goal 1: a decline in proportion of population living below the national poverty line from 46.6 per cent in 2014 to 36.1 per cent in 2016. Regarding land tenure rights, 94 per cent - Men only owned title deeds; 5 per cent - Women and Men owned title deeds; and 1 per cent Men only owned title deeds. On Goal 8, the number of commercial bank branches per 100,000 adults is seven (7) and the number of Automated Teller Machines (ATMs) per 100,000 adults is eleven (11).

Conclusions

1. Youth and women have limited access to financial services and products. Most of them are excluded from financial services and products. A small percentage of the youth (20.92%) have access to both formal prudential and formal non-prudential services and products as a percentage of the total population. An average of 59 per cent of youth living in rural areas and 36 per cent living in urban areas are excluded. Generally, 16 per cent of women have access to finance from institutions offering both formal and non-formal prudential services and products. Sixty six (66) per cent of women living in rural areas are excluded, compared to 51 per cent of those living in urban areas.
2. The number of financial institutions giving agricultural loans constitutes a small proportion of the institutions that provide loans, namely: 10 SACCOs, 4 commercial banks, and one micro-finance bank, and 14 micro-finance institutions.
3. The number of youth taking loans: More youth in rural areas access loans compared to youth in urban areas. The number indicates that three times more youth living in rural areas take loans compared to their urban counterparts. In terms of proportions, more urban youth (31%) access loans from formal institutions compared to rural youth (18%). Female youth in rural areas (9%)

access more loans than their male counterparts (6%). When the number of loans are taken into account, a larger percentage of the youth only take one loan, and for youth living in both rural and urban areas, more women above the age of 20 take loans compared to male youth. Contextually, access to finance from formal institutions by the youth is a policy issue, although those in urban areas have more access than those in rural areas.

4. Access to loans for agriculture: More youth in rural areas (87.8%) access loans compared to those in urban areas (12.2%). Further, access to loans increases with age; female youth in rural areas (69.8%) take more loans compared to their male counterparts (30.2%). Regarding the amount borrowed for agricultural loans, youth in urban areas borrow more on average (Ksh 51,166) compared to those in rural areas (Ksh 46,794). Furthermore, the average amount of agricultural loans is higher for males (Ksh 62,007) compared to women (Ksh 35,953). Informed by this finding, female youth seem to be facing more bottlenecks in accessing loans for agriculture compared to male youth.

5. Most women living in rural and urban areas take one loan (588,720) with the age cohort 35-65 being the most active. This age cohort constitutes a third of women population taking loans. Women living in rural areas (1,150,016) take more agri-business loans compared to those in urban areas (147,804). Most of the loans are used to meet day to day farm activities, buy farm inputs and assets, expand their farms, and diversify their agri-business activities. The age cohort 35-65 borrows on average the largest amounts (Ksh 9,109- rural and Ksh 9,540 urban) for agricultural purposes despite the area of residence, with the rural population recording a higher maximum (Ksh 439,000).

6. The main source for financial information for both women and men is from their peers. This informs their decisions on credit, savings and insurance, implying that communal channels of communication are critical for information flow. Level of awareness increases with age, in both rural and urban areas. Males in urban areas have higher levels of awareness compared to females. In rural areas, females have higher awareness levels compared to males.

7. The levels of financial numeracy among youth and women living in urban areas are higher than those in rural areas: Overall, among youth male and female, an estimated 60 per cent have no knowledge of Credit Reference Bureau (CRB). The financial numeracy of male and female youth in all the age cohorts in urban areas has better numeracy skills compared to those in rural areas. Over 48 per cent of youth in both rural and urban areas were able to read and interpret the costs of mobile money transactions. Women in urban areas in all age cohorts have more knowledge about Credit Reference Bureau (CRB) compared to those in rural areas. The levels of financial numeracy among women in urban areas are higher than those in rural areas. Females in age cohort 15-19 in urban (65%) and rural (46%) areas record the highest levels of numeracy compared to other cohorts. Over half (50%) of the respondents were able to read and interpret the costs of mobile money transactions, implying financial literacy levels among them.

8. Access to various forms of collateral: Results show that female youth have access to various collateral items (15%) compared to their male counterparts (4%). The access to various collateral instruments increases with age. For women living in rural areas, the collateral item used were mainly moveable assets, salary and guaranteed by another person. For those living in urban areas, the items were land titles, salaries and guaranteed by another person.
9. Key production activities: Youth aged 30-34 living in rural areas are the most active age cohort and use agri-finance for agricultural production activities (505,906) and livestock trade in products (75,947). Specifically, more female youth are involved in agricultural production (21%) and livestock trade (22%) while the males (17 %) are agricultural producers and 20 per cent are involved in livestock trade.
10. Women participation in agricultural value chains: A mapping conducted with women involved in retail trade showed that women participate at all stages: in input supply (8%); production (23%); aggregation (15%), where they provide services for different commodities at different stages. The proportion of women engaged at the different levels indicated that 31 per cent of the women are involved in marketing with 55 per cent of their consumers being individuals. Only 6 per cent of the women were involved in transport, 11 per cent in storage and 7 per cent in value addition stages of the value chain. This implies that there are opportunities to support women to participate in all stages of the value chain for different agricultural commodities in support of agricultural trade. However, further research is required to quantify and qualify the level of participation.
11. Women Empowerment in Agriculture Index (WEAI): Based on a study carried out in July 2018, the abbreviated Women Empowerment in Agriculture Index (a-WEAI) was 0.921 for 5DE score, 0.970 for GPI score and 0.925 for a-WEAI. This implies that between 2016 to 2018, all three indices improved for Kenya, and that 74.5 per cent of women were considered empowered based on a-WEAI methodology.
12. Individuals who have accounts in a formal institution, tertiary education and are in a higher wealth income quantile have a higher probability to access agricultural finance. Specifically; the results for the determinants of access to agri-finance show that individuals who have accounts with a financial institution have a 39 per cent chance of accessing agri-finance. Education at tertiary level gives one a 7 per cent higher probability of access to agri-finance. Another determinant is wealth quintile; higher wealth quintile increases the probability by 4.3 per cent.

Recommendations

1. Provide incentives to mobilize participation of financial institutions in provision of agricultural financial services and products. The agriculture

sector has risks and costs that are in many cases beyond the control of the actors involved, thus the need to incentivize financial service provision. This effort needs to be complemented by adequate data on the different production systems, which will be useful in providing a basis for innovative options for financial institutions to develop appropriate services and products.

2. Enhance programmes that focus on improving the financial literacy of youth and women: Efforts should be made to introduce financial literacy in the school curriculum at all levels – primary, secondary and tertiary level. This will go a long way in preparing the youth for entrepreneurship, by providing them with a combination of knowledge and skills required to make informed financial decisions. These efforts should consider that the youth are not a homogenous group and have different needs depending on their age, gender and local context.
3. Explore the potential for financial services and products that do not require fixed collateral: Youth and women usually have difficulty in gaining access to traditional sources of financing due to their little experience and few assets. Alternative forms of collateral need to be explored and institutionalized to benefit the youth and women, such as contract farming, leasing, and warehouse receipt finance.
4. Promote the use of information technology and communication (ICT) in the provision of financial services and products: Digital platforms enhance the delivery of information, thus opening opportunities for youth and women to access several services including trainings, markets, goods and financial services just to mention but a few.
5. Strengthen the level and magnitude of participation of youth and women along the value chain: There is opportunity to identify where youth and women can thrive. These opportunities exist at all stages of the value chain so long as they provide certain minimum levels of profitability and sustainability for enterprises led by youth and women.

Abbreviations and Acronyms

AFC	Agricultural Finance Corporation
ATMs	Automated Teller Machines
CAPI	Computer Aided Personal Interviews
CBK	Central Bank of Kenya
CRB	Credit Reference Bureau
CGAP	Consultative Group to Assist the Poor
CMA	Capital Markets Authority
DFIs	Digital Finance Institutions
DFS	Digital Financial Services
DTS	Deposit Taking Saccos
EU	European Union
FAO	Food and Agriculture Organization
FIs	Financial Institutions
FP	Financial Provider
FSD	Financial Sector Deepening
GDP	Gross Domestic Product
ICT	Information Communication Technology
IGAs	Income Generating Activities
IRA	Insurance Regulatory Authority
KIPPRA	Kenya Institute for Public Policy Research and Analysis
KNBS	Kenya National Bureau of Statistics
KSh	Kenya Shilling
MFI	Micro Finance Institution
MFS	Mobile Financial Services
NASSEP	National Sample Survey and Evaluation Programme
NGO	Non-Governmental Organization
NHIF	National Hospital Insurance Fund
NSSF	National Social Security Fund
RBA	Regulatory Benefits Authority
SACCO	Savings and Credit Cooperative Organization
SASRA	Sacco Societies Regulatory Authority
SSA	Sub-Saharan Africa
UN	United Nations
WEAI	Women Empowerment in Agriculture Index
WEF	Women Enterprise Fund

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1. INTRODUCTION

The agriculture sector employs the largest share of the population in Kenya (around 62%) and accounts for 60 per cent of exports (MoALF, 2018). Furthermore, the sector has strong linkages with the rest of the economy where a 1 per cent growth in agriculture is estimated to drive 1.6 per cent growth in overall Gross Domestic Product (GDP). However, the sector has under-performed compared to its huge potential, both in terms of wealth creation and decent job creation: agricultural labour productivity has remained stagnant at a value addition of US$ 1,386 (in the year 2000) to US$ 1,288 in the year 2018 per worker per year (World Bank Indicator, 2019). Youth and women face challenges in accessing business opportunities in agriculture. The average age of the farming population is 60 years (Agriculture Sector Transformation and Growth Strategy, 2019-2029). Youth are not attracted to farming because of the perceived low returns and are constrained by limited access to land and other factors of production (including capital). It is important to note that Kenya faces a demographic bulge and inadequate avenues to productively engage its youth and women. The share of youth aged 15-24 years is about 21 per cent (suggesting a youth bulge). In addition, the share of the 0-14-year-olds is 43 per cent, suggesting that the youth population share will be larger than 20 per cent for a relatively long time.

Women play fundamental roles in agriculture, comprising over 40 per cent of its labour force worldwide. Women's labour force participation differs across and within countries and regions, from 20 per cent in Latin America to 50 per cent in parts of Africa and Asia. Women, especially female youth, have the potential to contribute to food security, economic development, social inclusion and stability. Unfortunately, three of every four youths in Africa live on less than US$ 2/day (ADB, OECD UNDP and UNECA, 2013).

The gender gap in terms of access to financial services between young men and women is exacerbated by both demand and supply-side issues; formal financial inclusion of the African youth cohort is low (World Bank, 2015). Compared to their male counterparts, young African women have several challenges, including: (1) a lower level of financial literacy and competence; (2) time and mobility constraints; (3) less opportunity for access to formal education, employment and entrepreneurship; (4) poor access to information and networks; (5) low experience

and unfavourable cultural and gender norms; and (6) often have no direct access to land (World Bank, 2013).

Therefore, it is critical that the negative perceptions on agriculture among the youth be remoulded. One feasible way to do so is by promoting and increasing awareness and access to agricultural information and finance to support innovations. According to Financial Sector Deepening - FSD (2016) Kenya study, few youth and women use formal financial services when compared to adults especially in the rural areas where access to financial services is low.

According to the Kenya Youth Agribusiness Strategy 2017-2021 (MoALF and Council of Governors, 2017) agriculture is perceived by youth as "a career of last resort, one of drudgery and low monetary benefits". This perception has been aggravated by loss of agricultural know how; agriculture was dropped from the elementary school curriculum, and there is a steady decline in enrolment in agriculture vocational training schools, colleges and universities (FAO, 2018). Women, despite constituting most farmers (agriculture employs 80% of women and 56% of men in Kenya), lack access to land, inputs, markets and finance, resulting in a yield gap of up to 30 per cent between male and female-managed agricultural enterprises (MoALF, 2019).

Therefore, there is need to study and understand the status of access to agri-finance by youth and women, including their needs, constraints and priorities. This will enable design of programmes that facilitate removal of hurdles blocking youth and women entrepreneurship in agri-businesses (negative perception of the sector - i.e. employer of last resort; lack of capacity to design and implement a business; lack of access to land; among others).

Access to finance

Schumpeter (1911) identified the central role of financial services in innovation and development through funding productive investments. As a result, finance is an important driver of economic participation which leads to development. Access to finance can be viewed from different perspectives, such as geographic access (proximity to a financial service provider), socio-economic access (absence of prohibitive fees and documentation requirements) and appropriateness of products that meet the needs of the customers, are sustainable to both providers and users and are well priced (Beck, 2016). Access to financial services includes individuals and or enterprises ability to access credit, deposit, payments, insurance and other risk management services (Demirgüç-Kunt, 2008).

Youth and finance

Providing formal financial services to the youth is literally banking into their future since they become comfortable in the formal financial environment and will be in need of other financial services as they progress into adulthood (Kilara et al. 2014). Data obtained from the World Bank's (2015) Global Financial Inclusion Database (Findex) established that youth were 33 per cent less likely to own a bank account than adults (Demirguc-Kunt and Klapper, 2012). A higher percentage of youth (18-25 years) are excluded financially compared to other age groups (FSD, 2019). In addition, growth in mobile account usage is largely being driven by young people below 35 years. Statistics indicate that youth have an appetite for credit, save less, and obtain minimal insurance. For instance, in 2012, youth had US$ 186 million outstanding in credit, US$ 48 million in savings and US$ 1.2 million in insurance (FSD, 2019). Youth also tend to have low levels of financial literacy where fewer than one-third of young adults possess basic knowledge of interest rates, inflation, and risk diversification (Lusardi et al., 2009).

Challenges attributed to youth and finance relate to the fact that youth have limited savings, are harder to reach through traditional channels, are scared of transaction fees, and tend to get stuck in debt cycles (Kilara, et al., 2014). In some scenarios, youth may face challenges such as documentation requirements such as 'know your customer' which hinders them from entering the formal financial sector. Additionally, regulatory restrictions on minors' account ownership and additional costs act as bottlenecks to the youth in entering formal financial systems (Deshpande, 2012; Hirschland, 2009; Kilara and Latortue, 2012). Youth also face financial literacy bottlenecks and may require financial education which includes access to financial institutions that could have savings components as incentives (Johnson and Sherraden, 2006). Another emerging challenge among the youth in relation to usage of mobile money accounts relates to betting. According to Financial Sector Deepening Report of 2019, 3.7 per cent of individuals aged 18 to 25 years were reported to be engaged in betting using mobile money accounts.

Women and finance

Over time, the financial inclusion landscape in Kenya has increased from 26.7 per cent in 2006 to 82.9 per cent in 2019 (FinAccess, 2019). Equally, financial exclusion has reduced from 41.3 per cent in 2006 to 11.0 per cent in 2019. While the financial disparities between men and women have notably reduced, more women (46.9%) access finances from informal sources than men (35.3%). Women face challenges related to limited ownership and control over assets such as land and finances. Due to inability to have control over assets, women also face challenges associated

with collateral, which again bars them from accessing finances (Action Aid , 2015; FIDA, 2009; Seymour et al, 2016). Lack of access to finance and less opportunities to acquire technical skills by women often translate into limited access to improved inputs and lower yields (Varangis, 2015). Agriculture in its nature is susceptible to shocks such as droughts and floods, and women bear the most brunt when such eventualities occur. Inadequate access to loans or insurance when shocks such as droughts and floods occur imply that producers are likely to lose assets (Diagne and Zeller, 2001). In response, well designed products that allow women to adequately save, borrow and insure against shocks are important to strengthen their role as producers and expand the economic activities they undertake, scale at which they can operate and their ability to benefit from economic opportunities (Fletschner and Kenney, 2011).

Scope of the Study

The scope of this study is to discuss youth and women access to finance, which is a component of financial inclusion, captured as savings, credit, insurance and transactions. Therefore, this baseline report will inform on the status of access to finance by women and youth, particularly in the agriculture sector as a way towards unlocking hindrances to increased productivity and achievement of food security.

This is in line with strategy documents and policies, including the blueprint Kenya Vision 2030 as supported by the Kenyan Constitution where under the Social Pillar there is a call to address the plight of vulnerable groups through enhanced access to financial facilities for socio-economic empowerment. In addition, the baseline report will inform on the current development agenda of the "Big Four" on food security and nutrition. Further, the output will inform on the Sustainable Development Goals that express the need for inclusivity for all. Specific goals include Goal 5 of gender equality, Goal 1 of no poverty, Goal 2 of zero hunger, Goal 8 of decent work and economic growth, Goal 10 of reduced inequalities, and Goal 12 of responsible consumption and production.

1.1 Objectives

The main objective is to undertake a national baseline survey to establish the status of access to finance by youth and women in Kenya. The specific objectives are to:

(i) Establish the status of access to agriculture finance by youth and women in Kenya.

(ii) Evaluate the needs, constraints, priorities and the level of satisfaction in agri-financing among youth and women in Kenya.

(iii) Assess the level of awareness of different agri-finance channels among youth and women in Kenya.

(iv) Assess the status of financial literacy and access to agri-finance information by youth and women in Kenya.

(v) Assess various forms of collateral available for youth and women accessing agri-financing in Kenya.

(vi) Make an initial summary of the key production activities/value chains, the markets and the source of agri-financing.

2. METHODOLOGY

2.1 Approach

2.1.1 Secondary data

The study used the FinAccess 2018 dataset, a nationally representative household survey on financial inclusion in Kenya. The FinAccess 2018 is a cross sectional household survey from 8,669 respondents (CBK, KNBS and FSD, 2019).

To addressing the objectives, the following data was extracted:

(i) Number of financial institutions giving loans to youth and women disaggregated by type

(ii) Number of youths accessing a loan from financial institutions disaggregated by sex and age

(iii) Number of women accessing a loan from financial institutions disaggregated by age

(iv) Percentage of youth accessing loans from any financial institution

(v) Percentage of women accessing loans from any financial institution

(vi) Number of loans accessed by youth disaggregated by sex and amount

(vii) Number of loans accessed by women disaggregated by age and amount

(viii) Number of youths accessing loans from any financial institution for agri-business

(ix) Number of women accessing loans from any financial institution for agri-business

(x) Number of youths trained to engage in income generating activities (IGAs), disaggregated by sex and age

(xi) Number of women trained to engage in IGA, disaggregated by age

(xii) Women Empowerment in Agriculture Index (WEAI)

(xiii) Other critical areas

In addition the government implements the Kenya Vision 2030 through five-year development plans, currently in Medium Term Plan (MTP) III which also encompasses the "Big Four" agenda. The agenda aims to accelerate economic growth by focussing on manufacturing, food security and nutrition, and providing universal health coverage and affordable housing. The "Big Four" agenda is aligned to the Vision 2030, the Sustainable Development Goals, and Africa Union's agenda 2063. Access to finance is an enabler for the youth to engage in economic activities that feed into the "Big Four" agenda of ensuring food and nutrition security, and manufacturing. This is also recognized in the Kenya Vision 2030 and the MTP III where government supports the youth through special funds such as the Youth Enterprise Development Fund, and Uwezo Fund to increase credit access and enable them to invest in Micro Small and Medium Enterprises for employment creation. Most MSMEs are largely in agro-processing, trade, services and manufacturing sectors.

Therefore, this report provides the status of these initiatives, including the SDGs numbers: 1 on no poverty; 2 on zero hunger; 5 on gender equality; 8 on decent work and economic growth; 10 on reduced inequalities and 12 on responsible consumption and production.

Sampling procedure

Sampling for the FINAccess 2018 Survey utilized a two-stage stratified cluster sampling design. This was geared towards providing valid and reliable estimates at national level, regional levels and rural and urban areas separately. The first stage entailed selecting 1000 clusters from NASSEP V. The second stage involved random selection of a uniform sample of 11 households (434 in urban and 566 in rural areas) in each cluster from a roster of households in the cluster using systematic random sampling method. The third stage involved selection of the individual at the household level using an inbuilt Computer Aided Personal Interview (CAPI) KISH grid to select one eligible individual (16+ years) from a roster of all eligible individuals in the household. All the selections were done without replacement. The data has been weighted back to the population to be representative at both the national level as well as at the regional levels (CBK, KNBS and FSD, 2018).

2.1.2 Primary data

Key informant interviews for women in agribusiness in major markets were carried out to collect information regarding opportunities and challenges in accessing agricultural finance. Data was collected from 50 women in 25 counties (two per

county) engaged in agri-business in major markets. Participants were women of age 18 years and above participating in different agricultural value chains and at different levels.

2.2 Analytical Approach

This baseline study focuses on youth and women and is based on sex disaggregated age cohorts, namely: ages 15-19; 20-24; 25-2 and 30-34 for both male and female. Additionally, women are categorized into ages 35-65 and above 65 years old. The results were summarized using descriptive statistics (percentages, means, standard deviations, modes and median presented in charts and tables).

Determinants of access to agri-finance

To assess what determines access to agri-finance for youth and women, a multinomial logit model was used. Whereas the binary logit model assumes that the dependent variable has only two possible outcomes, "success" and "failure", the multinomial logit model assumes more than two outcomes for the dependent variable. The outcomes are also not ordered or lack a natural ordering (Brooks, 2008; Chinwuba, Davina and Lucky, 2016). One of the cases is thus taken as the base or reference category against which the others are compared with. The reason for choosing multinomial logit model is that it is the standard way for estimating unordered, multiple response category dependent variables (Martey et al., 2012). The model also assumes independence across the choices (Woolridge, 2016). The multinomial logit is also easier to compute and interpret compared to the multinomial probit (Hassan and Nhemachena, 2008).

The dependent variable can be assumed to take one of the *j* categories or alternatives such that *j = 1, 2, …k*. the probability of observing outcome *M* given *X* in a probability model for Y is given as:

$$\Pr(Y=M/X) = e^{f(Z)}/(\Sigma\,[1+e^{f(Z)}]) \quad \text{..... (1)}$$

Having estimated the multinomial logit, the marginal effects are then computed and interpreted as change in probability for observing outcome *i* for the explanatory variable concerned, with reference to the outcome that is used as the base category.

Table 1: Variables used and their definitions

Type of variable	Variable	Nature of variable	Codebook
Dependent variables	Agri_Fin_Access	Binary	0 if Did not access; 1 if accessed
	Access	Categorical – 5 categories	1 if Formal prudential, 2 if Formal non-prudential, 3 if Formal registered, 4 if Informal and 5 if excluded
Explanatory variables	Age of respondent	Continuous	16–95 years
	age_squared	Continuous	Square of a13
	Household size	Continuous	1–21 members
	Monthly income in Ksh	Continuous	0–400,000 Ksh
	Gender of respondent	Binary	0 if female; 1 if male
	Mobile_own	Binary	0 if no; 1 if yes
	Own_formal_ financial_ account	Binary	0 if no; 1 if yes
	Saving	Binary	0 if no; 1 if yes
	Own land	Binary	0 if no; 1 if yes
	Education	Categorical – 5 categories	1 if None, 2 if Primary, 3 if Secondary, 4 if Tertiary, and 5 if Other
	Marital	Categorical – 5 categories	1 if single/never married; 2 if divorced/ separated; 3 if widowed; 4 if married/ living with partner; 5 if Other
	Estimated wealth quintile	Categorical – 5 categories	1 if lowest; 2 if second lowest; 3 if middle; 4 if second highest; and 5 if highest
	Average cost to nearest financial provider	Categorical – 6 categories	1 if close enough to walk; 2 if less than Ksh 50; 3 if between Ksh 51-100; 4 if between Ksh 101-200; 5 if between Ksh 201-500; 6 if more than Ksh 500

Source: Adapted from FinAccess (2019)

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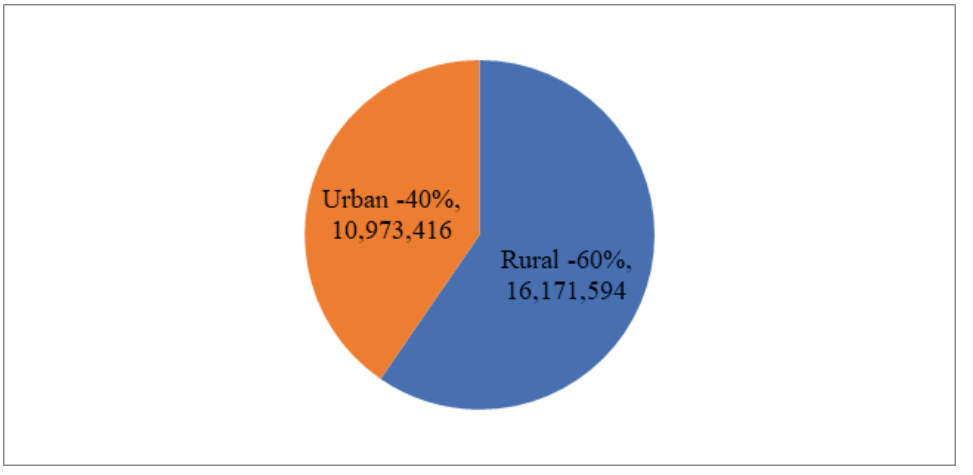
3. FINDINGS

The results focus mainly on the status of different indicators. The results are disaggregated into age cohorts adapted from the Kenya National Bureau of Statistics population distribution of the age cohort, namely: ages 15-19; 20-24; 25-29 and 30-34 for both male and female. Additionally, women are categorized into ages 35-65 and above 65 years old. The findings are presented in three sub-sections including: information on youth, information on women and finally cross cutting issues.

3.1 Description of the Data Set

The total weighted population was 27,145,010 people. Figure 1 shows the distribution of the population by area of residence.

Figure 1: Distribution of the population by area of residence



Source of data: FinAccess (2019)

The 60 per cent of the population resides in the rural areas (16,171,594 persons) compared to those who reside in urban areas (10,973,416 persons). The population of the youth age cohorts is shown in Table 2.

Table 2: Population by age and gender

Age Cohort (years)	Rural		Urban	
	Male	Female	Male	Female
15-19	425,605	858,627	232,099	599,828
20-24	556,285	920,936	804,711	906,668
25-29	632,410	1,011,191	868,598	964,910
30-34	716,310	1,075,752	882,039	926,796
35-65	3,683,642	3,326,544	2,214,808	1,723,325
Above 65	1,021,220	1,270,932	206,230	277,095

Source: FinAccess (2019)

3.2. Youth and Finance

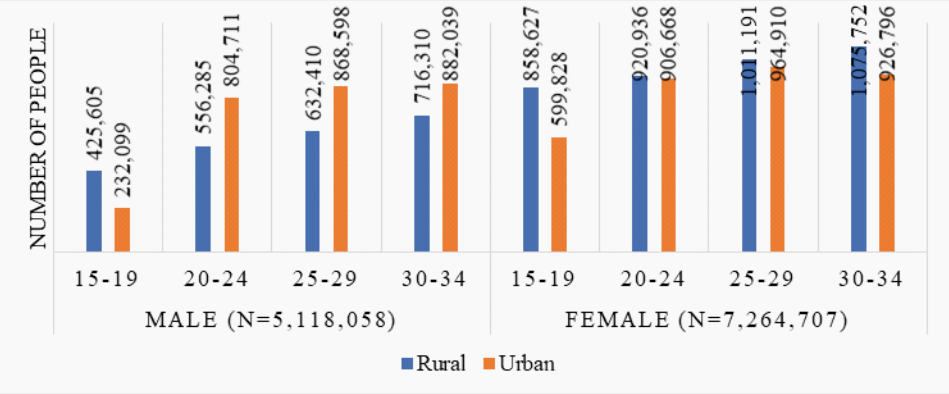
3.2.1 Description of the data set

Description of the youth population

The youth constitute the largest proportion of the population. Kenya has an estimated population of about 46.6 million in 2017, projected to grow to 47.8 million by 2018 (KNBS, 2019a). An estimated 76 per cent of this population is within the age bracket 0-34 years. Youth aged between 10 and 19 years account for 24.4 per cent of the population, with 49 per cent of them being male and 51 per cent being female (KNBS, 2018).

The largest proportion of youths reside in rural areas compared to those who reside in urban areas (Figure 2). Of the total youth sample, 59 per cent are female and most of them live in rural areas compared to their male counterparts. This could be an indication of a higher preference for the male youth to take up economic activities in urban areas relative to their female counterparts.

Figure 2: Number of youth respondents by gender (N=12,382,765)

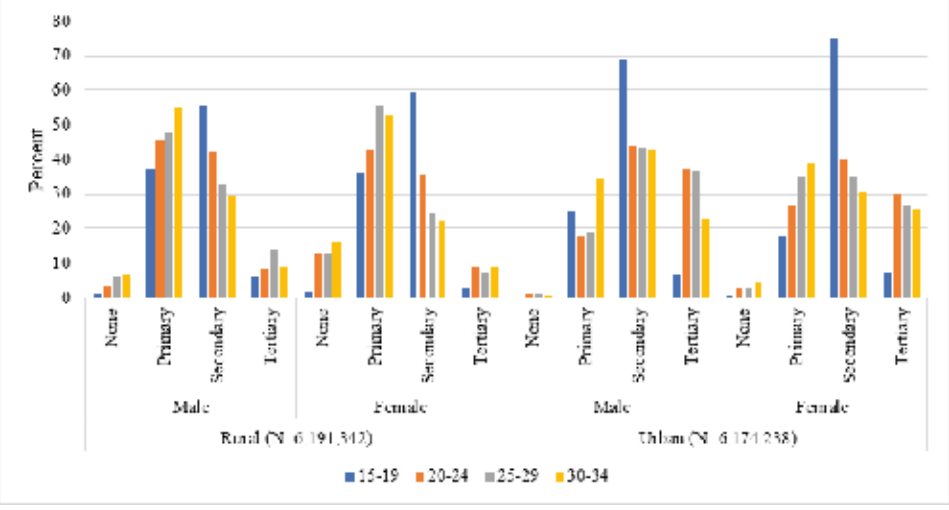


Source: FinAccess (2019)

Level of education for the youth

From Figure 3, most youth in both urban and rural areas have acquired at least primary and secondary education, with the older youth 25–34 years having relatively higher levels of formal education. The urban-based youth are more educated relative to the youth in rural areas as indicated by numbers with tertiary education and very few with no formal education in the urban areas.

Figure 3: Proportions of the level of education for the youth by gender and age



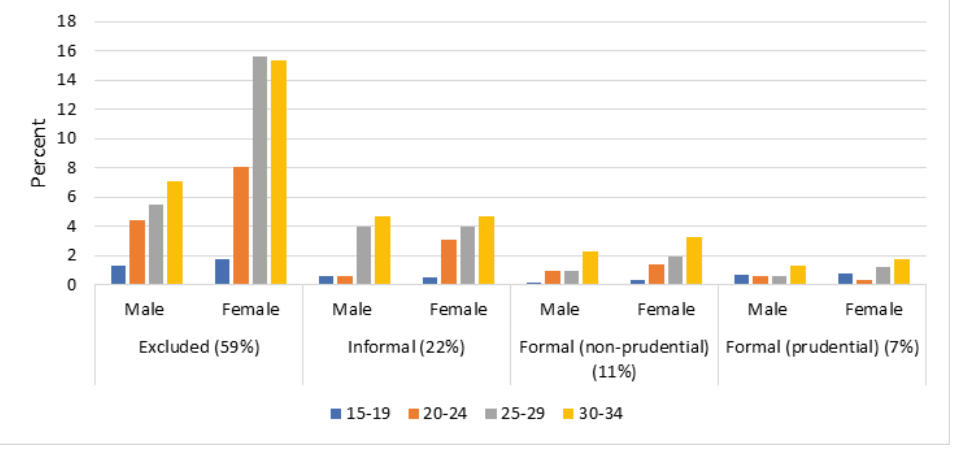
Source of data: FinAccess 2019

3.2.2 Status of access to financial services and products by youth

The study categorises access to finance as outlined in the FinAccess Survey Report (2019) shown in Table A1 in the Appendix.

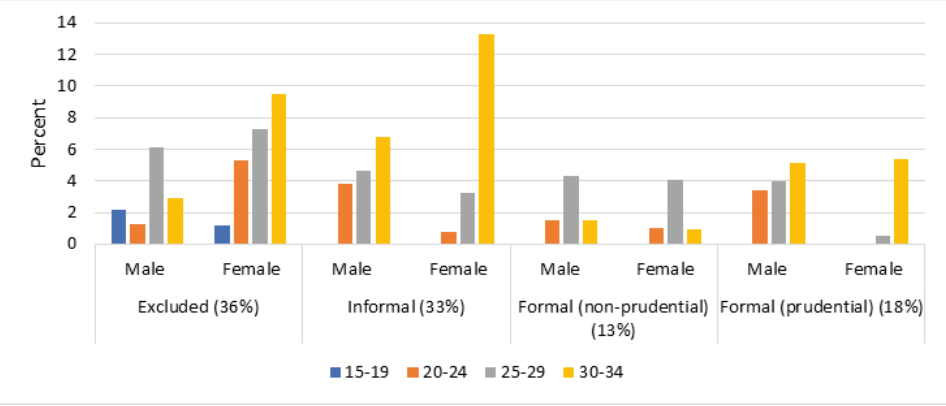
Overall, 20.92 per cent of the youth had loans from institutions offering both formal prudential and formal non-prudential services and products. 59 per cent of youth living in rural areas and 36 per cent living in urban areas are excluded. Specifically, more urban youth (31%) access loans from formal institutions compared to rural youth (18%). Female youth in rural areas (8.93%) access more loans than their male counterparts (6.36%). In urban areas, the story is different with uptake of loans by male youth (3.51%) being slightly higher than female youth (2.11%) (Figure 4 and 5).

Figure 4: Proportion of youth living in rural areas accessing financial services and products (%)



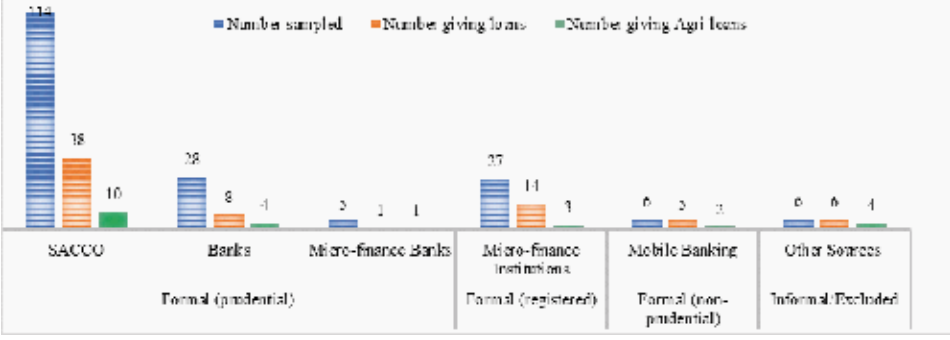
Data Source: FinAccess (2019)

Figure 5: Proportion of youth living in urban areas accessing financial services and products (%)



Data Source: FinAccess 2019

Figure 6: Number of financial Institutions giving loans to youth



Data Source: FinAccess (2019)

Access to loans by the youth in Kenya

In the formal prudential category of institutions, SACCOs were the most popular and largest in number at 114 (Figure 6). Out of these, 38 SACCOs gave general loans and 10 SACCOs gave loans meant for agri-business. Similarly, of the 28 banks mentioned by respondents, 8 gave loans to youth and 4 provided agri-business loans. The other category of interest is the informal/excluded where the number 6 represents the different options available to the youth and does refer to the actual numbers, namely: money lender/shylock, *chama*/ group, family, friend or neighbour loan, shopkeepers/supply chain credit, and employers.

In terms of numbers, youth in rural areas (371,778) access loans from institutions offering formal prudential and formal non-prudential services and products compared to youth in urban areas (136,616) (Table 3 and 4).

Table 3: Type of financial institutions giving loans to youth disaggregated by age and number in rural areas

Rural (N=1,997,338)								
Age Cohort	**Excluded (59%)**		**Informal (22%)**		**Formal (non-prudential) (11%)**		**Formal (prudential) (7%)**	
	Male	**Female**	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**
15-19	25,889	36,190	12,189	9,071	3,073	6,226	14,459	15,315
20-24	87,444	162,393	12,902	61,545	19,077	28,322	11,122	5,881
25-29	110,447	311,181	79,299	79,954	20,472	37,055	12,931	23,178
30-34	142,549	306,647	94,812	93,049	46,732	65,242	26,837	35,855
Total	366,330	816,411	199,202	243,618	89,354	136,845	65,349	80,230

Source of data: FinAccess (2019)

Specifically, youth in rural areas (Table 3) access loans from informal sources such as *chamas* (22%), formal non-prudential such as mobile money (11%) and formal prudential such as banks (7%) while youth in urban areas (Table 4) access loans from informal sources (33%), formal non-prudential (13%), and formal prudential (18%). 59 per cent of rural youth do not have access to loans while for the urban youth its 36 per cent.

Table 4: Type of financial institutions giving loans to youth disaggregated by age and number in urban areas

Urban (N=432,348)								
Age Cohort	**Excluded (36%)**		**Informal (33%)**		**Formal (non-prudential) (13%)**		**Formal (prudential) (18%)**	
	Male	**Female**	**Male**	**Female**	**Male**	**Female**	**Male**	**Female**
15-19	9,644	5,143	-	-	-	-	-	-
20-24	5,486	23,055	16,283	3,569	6,541	4,453	14,644	-
25-29	26,282	31,626	19,743	13,934	18,392	17,722	17,164	2,004
30-34	12,697	41,269	29,335	57,665	6,635	3,691	21,917	23,453
Total	54,109	101,093	65,361	75,168	31,568	25,866	53,725	25,457

Source of data: FinAccess (2019)

The study also established the number of loans borrowed by the different age cohorts as shown in Table 5. As expected, most youth only take one loan, and for youth living in both rural and urban areas, more youth women above the age of 20 take loans compared to the male youth.

Table 5: Number of loans borrowed by youth living in rural and urban areas

Rural					
	Number of Loans	**1**	**2**	**3**	**4 and above**
Male	15-19	4,222	-	-	-
	20-24	-	-	2,857	-
	25-29	8,784	7,449	1,208	-
	30-34	16,125	9,293	-	-
Female	15-19	7,657	-	-	-
	20-24	-	9,742	11,414	2,128
	25-29	33,425	2,978	7,512	3,115
	30-34	18,210	8,666	3,255	-
	Total	**88,425**	**38,131**	**26,247**	**5,244**
Urban					
	Number of Loans	**1**	**2**	**3**	**4 and above**
Male	15-19	-	-	-	-
	20-24	5,670	2,442	-	3,330
	25-29	5,024	5,972	4,622	4,663
	30-34	8,058	7,916	2,050	4,977
Female	15-19	-	-	-	-
	20-24	-	4,044	3,666	-
	25-29	6,989	-	-	5,454
	30-34	20,887	1,129	2,032	1,736
	Total	46,629	21,506	12,372	20,163

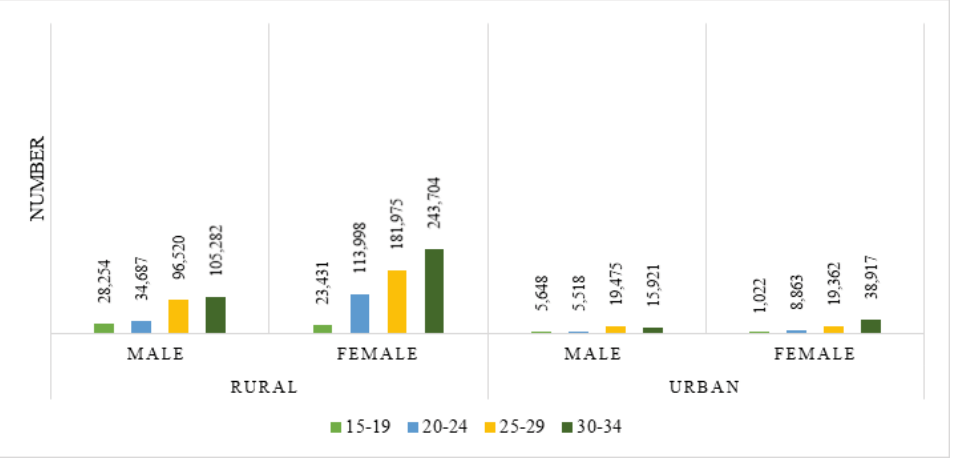
Data Source: FinAccess (2019)

Access to loans for agriculture

More youth (827,851 or 41%) in rural areas access loans when compared to the ones in urban areas (114,726 or 27%). This finding is expected since most agricultural activities take place in rural areas. Further, access to loans increases with age; female youth (243,704) in rural areas take more loans compared to their male

counterparts (105,282). Generally, the levels of access for those in urban areas are much lower at 38,917 for females and 15,921 for males (Figure 7).

Figure 7: Number of youth accessing loans for agri-business



Source of data: FinAccess (2019)

On amount for agricultural loans, youth in urban areas have higher aggregate mean amounts (Ksh 51,166) than those in rural areas (Ksh 46,794). Furthermore, the aggregate mean amount of agricultural loans is higher for males (Ksh 62,007) compared to women (Ksh 35,953). Male and female youth aged 25-29 have the highest aggregate mean loan amounts for agriculture (Ksh 34,004) followed by those aged 15-19 (Ksh 25,001). For instance, the mean amount for males aged 25-29 in urban areas was higher (Ksh 17,324) than their rural counterparts (Ksh 7,813) (Table 6). This may be attributed to the fact that youth in urban areas are involved in downstream activities of the value chain that involve processing and marketing and therefore, incur more costs, when compared with their rural counterpart who are mainly involved in the production

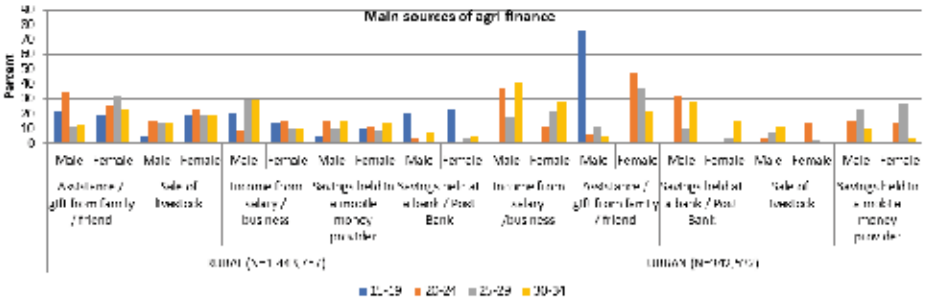
Figure 8 shows that the main sources of agri-finance among the youth, which were assistance/gift from family/friend and income from salary/business. The age cohort 30-34 living in rural areas had a wide range of agri-finance sources, with income from salary/business as the most prominent at 42 per cent for male and 27 per cent for female. For the case of youth aged 20-24, females in urban areas received assistance/gift from family/friend as their main source of agri-finance (48%) compared to males (6%). For males aged 20-24, their main source of agri-finance was income from salary/business in urban areas (37%) and assistance/ gift from family/friend for those in rural areas (35%). This finding corroborates empirical literature that show that many financial institutions ask for several

Table 6: Average amount (Ksh) of agricultural loan

Age Cohort	Rural						Urban					
	Male			Female			Male			Female		
	Mean	Std. Dev	Max	Mean	Std. Dev	Max	Mean	Std. Dev	Max	Mean	Std. Dev	Max
15-19	5,814	9,458	30,000	2,687	5,715	20,000	13,000	.	13,000	3,500	4,950	7,000
20-24	6,259	28,974	168,900	5,665	10,415	55,000	3,097	7,463	20,000	1,171	2,299	7,300
25-29	7,813	21,092	105,000	6,814	17,739	150,000	17,324	44,595	160,000	2,053	3,969	15,040
30-34	3,812	10,469	60,000	7,930	17,734	180,000	4,888	6,353	15,170	6,133	10,551	40,000
35-65	26,053	115,308	1,500,000	9,109	32,269	439,000	29,664	120,359	1,000,000	9,540	30,671	196,500
>65	17,780	49,987	400,000	4,929	19,216	206,000	22,182	41,338	140,480	1,843	10,010	60,200

Source of data: FinAccess (2019)

Figure 8: Proportions of the different sources of Agri-finance (%)



Source of data: FINAccess (2019)

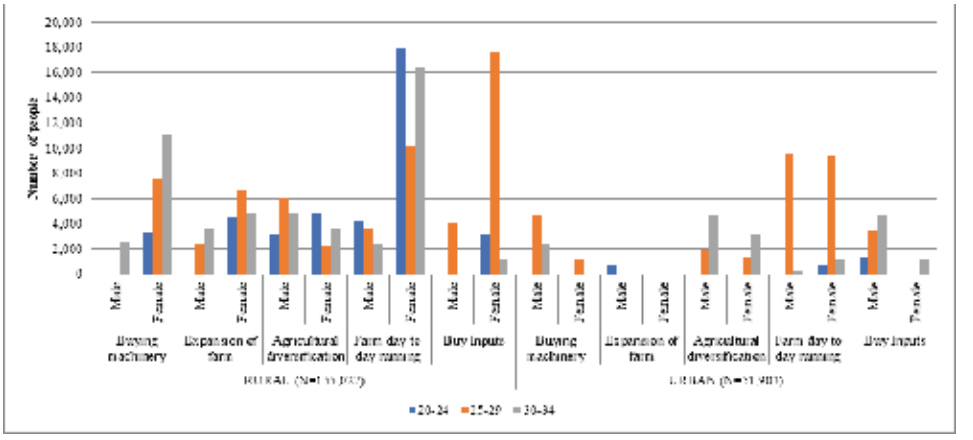
prerequisites before releasing funds to youth, such as loan guarantees, land titles, steady employment, personal guarantors, solidarity group guarantees or more informal guarantees which the youth typically do not have. Furthermore, youth are perceived as a high-risk category because of their limited financial capabilities.

3.2.3 Needs, constraints, priorities and the level of satisfaction in agri-financing for the youth

Needs

More youth living in rural areas take agri-business loans compared to those in urban areas as shown in Figure 9. Most of the loans are used to meet day to day farm activities, buy farm inputs and assets, expand farms and diversify agri-business activities. Notably, there are more female youth taking agri-business loans than male youth in these areas. This is an indication of more involvement of female youth in agri-business activities than male youth in the rural areas. In urban areas fewer youth take loans for production activities such as expanding their farms or buying inputs. This could be attributed in part to the fact that youth in urban areas are involved in higher levels of the value chain such as transportation, aggregation, value-addition and trade of agricultural products.

Figure 9: Number of youth using agri-business loans disaggregated by activity



Source of data: FinAccess (2019)

Constraints

Some of the constraints that have been highlighted across the different youth age cohorts as to why they are not able achieve their main goal is running out of money for both the rural and urban populations (Table 7 and Table 8). In the rural areas, 88 per cent of males and 64 per cent of female youth aged 25-29 reported running out of money as the reason for not achieving the main goal, implying a disparity among this age group. For female youth age cohorts, the age 20-24 and 30-34 reported running out of money as the limiting factor, in addition to the surprising finding that 60 per cent of females in rural areas aged 15-19 mentioned health problems as reason for not achieving goal.

Table 7: Proportions for not achieving your main goal for youth living in rural areas (%)

	Run out of money	Health problems	The loss of income	Theft or loss of livestock	Harvest failure or loss of crop	A drought, poor rainfall	Death	Increase in Cost of Basic goods
Male -Rural								
15-19	74	0	0	0	0	0	0	0
20-24	69	0	0	0	13	0	0	0
25-29	88	0	5	0	0	0	0	7
30-34	67	12	0	6	5	0	10	0
Female - Rural								
15-19	40	60	0	0	0	0	0	0

20-24	77	8	3	0	0	0	0	6
25-29	64	6	4	0	0	0	10	12
30-34	77	5	5	0	0	3	0	8

Source of data: FinAccess (2019)

In urban areas, just like in rural areas, both males and females report running out of money as the main reason for not achieving their goal. For instance, 91 per cent of females in urban areas aged 25-29 report running out of money as the main reason for not achieving goal while 84 per cent of females aged 30-34 report the same reason. These figures compare highly in relation to the urban male counterparts aged 25-29 and 30-34 of whom 76 per cent and 73 per cent, respectively (Table 7) report running out of money. More female youth reported running out of money as their main constraint living in urban areas compared to their rural counterparts, where the male youth report this as their main constraint.

Table 8: Proportions for not achieving your main goal for youth living in urban areas (%)

	Run out of money	Health problems	Accident or injury	Harvest failure or loss of crop	Death	The loss of a lot of money	Increase in Cost of Basic goods	Denied loan/ assistance
Male -Urban								
15-19	70	0	0	0	0	0	0	13
20-24	61	3	7	0	0	15	0	13
25-29	76	12	0	0	0	0	0	2
30-34	73	7	0	3	0	3	6	0
Female - Urban								
15-19	72	0	0	0	0	0	8	0
20-24	81	3	0	0	0	0	6	0
25-29	91	1	2	0	0	0	5	0
30-34	84	7	0	1	0	6	2	0

Source of data: FinAccess (2019)

The study then further pursued the reason that youth were denied credit. The main reasons were low savings and no credit history for both male and female youth living in rural areas (Table 9). Interestingly, for 20-24 cohort living in rural areas, they do not give a specific reason why they have been denied credit and record 'others' as a reason for being denied credit.

Table 9: Proportions for credit denial for youth living in rural areas (%)

	Savings too low	Still had debt to pay off	Bad/no credit history	Was not given a reason	Lack of collateral	Lack of records	Income is low and unable to repay	Others
Male -Rural								
15-19	57	26	0	17	0	0	0	0
20-24	45	0	16	0	0	11	8	20
25-29	11	0	46	29	0	0	14	0
30-34	6	11	22	37	0	13	0	11
Female – Rural								
15-19	0	0	0	0	0	0	0	0
20-24	49	4	3	17	0	0	0	27
25-29	27	28	30	8	0	7	0	0
30-34	8	31	34	19	0	0	0	8

Source of data: FinAccess (2019)

For youth living in urban areas, bad or no credit history and low savings were reported as the main constraints, with the female cohort 30-34 recording badno credit history (47%) as the main reason. Furthermore, 36% of males in urban areas aged 30-34 stated bad/no credit history as the main reason for being denied credit. Generally, "others" was reported across all age cohorts as reason for credit denial, implying that there is need for further interrogation in matters related to credit denial. However, from Figure 7, it is noted that not many youth living in urban areas take credit for agricultural activities.

Table 10: Proportions for credit denial for youth living in urban areas (%)

	Bad/no credit history	Savings too low	Was not given a reason	Still had debt to pay off	Lack of collateral	Lack of records	Income is low and unable to repay	Others
Male -Urban								
15-19	16	35	0	0	0	0	0	49
20-24	13	37	11	0	0	20	2	17
25-29	20	39	20	1	0	0	7	13
30-34	36	30	3	10	13	0	0	8
Female – Urban								
15-19	36	0	0	0	0	0	0	64
20-24	20	22	16	7	6	4	9	16

25-29	14	19	24	3	1	12	6	21
30-34	47	4	16	9	0	0	4	20

Source of data: FINAccess (2019)

Priorities

On what are the issues that the youth look for regarding access to finance, for those living in rural areas, results indicate that the main priorities include: fast/ easy access, no choice/required by group, cheap/affordable and reliability of funds. 63 per cent of males in urban areas aged 15-19 stated fast/easy access as the key priority for access to finance followed by males aged 25-29 and 30-34 of whom 58 per cent gave the same reason as priority. 56 per cent of males aged 20-24 also provided fast/easy access as the main priority for access to finance. Turning to the case of females in rural areas, 86 per cent of them aged 15-19 stated fast/easy access to finance as the main priority. This is followed by 67 per cent of females aged 20-24 who gave a similar reason while 57 per cent and 56 per cent of females aged 25-29 and 30-34, respectively, stated their priority as fast/easy access (Table 11).

Table 11: Proportions for priorities for youth living in rural areas when sourcing for finance (%)

	Fast/easy to access	*No choice/ required by group*	*Cheap/ affordable/ lowest fees*	*Reliable/ I know funds will be available*	*Feels most comfortable/ trust*	*Privacy*	*Less paperwork/ documents required*	*I didn't want to use my own money*
Male -Rural								
15-19	63	0	18	0	3	0	0	0
20-24	56	26	5	11	0	0	1	0
25-29	58	21	9	6	2	2	0	3
30-34	58	20	7	10	4	1	0	0
Female - Rural								
15-19	86	7	0	7	0	0	0	0
20-24	67	17	7	4	3	2	0	0
25-29	57	26	2	8	5	2	0	1
30-34	56	27	4	10	3	0	0	0

Source of data: FinAccess (2019)

For the case of youth living in urban areas, just like their counterparts in rural areas, results indicate that the main priorities include: fast/easy access, no choice/ required by group, cheap/affordable and reliability of funds. Males aged 20-24 of whom 83 per cent gave the same reason as priority. Similarly, 70 per cent of males

aged 25-29 in urban areas also provided fast/easy access as the main priority for access to finance. 58 per cent of females aged 30-34 stated fast/easy access to finance as the main priority. This is followed by 57 per cent of females aged 25-29 who gave a similar reason (Table 12).

Table 12: Proportions for priorities for youth living in urban areas when sourcing for finance (%)

	Fast/easy to access	No choice/ required by group	Feels most comfortable/ trust	Reliable/I know funds will be available	Cheap/ affordable/ lowest fees	Privacy	Less paperwork/ documents required	Need to keep the option open for future
Male -Urban								
15-19	100	0	0	0	0	0	0	0
20-24	83	5	5	8	0	0	0	0
25-29	70	3	17	8	0	2	0	0
30-34	56	21	13	7	2	0	0	0
Female - Urban								
15-19	44	56	0	0	0	0	0	0
20-24	44	16	3	37	0	0	0	0
25-29	57	13	11	17	2	0	0	0
30-34	58	10	7	20	4	0	0	2

Source of data: FinAccess (2019)

Level of satisfaction

Regarding level of satisfaction, the proportions allocated to the most trusted financial provider is used. Male youth trust the services provided by banks, mobile money providers and mobile banking. On average, male youth living in rural areas trust mobile money providers (28%) and mobile banking (7%) more than male youth in urban areas, who trust the banks (50%). The fourth most answered stated after the three financial institutions are: “none of these”, and “do not know”. This could be a pointer to the low levels of financial literacy among the youth, particularly the rural youth.

Table 13: Proportion of male youth satisfied with financial providers by type (%)

	Male							
	Rural				Urban			
	15-19	20 -24	25 -29	30-34	15-19	20 -24	25 -29	30-34
Bank	30	35	36	29	39	54	51	55
Mobile money provider	28	30	26	26	15	11	12	10
Mobile banking	12	4	9	3	1	4	7	5
A group/*chama*	2	7	4	12	0	0	1	0
SACCO	2	4	6	11	2	2	3	3
Microfinance institution	0	0	0	1	1	0	0	0
Insurance company	0	1	0	0	25	20	18	22
Moneylender/ Shylock	0	0	0	0	0	0	0	0
Mobile money agents	0	2	3	2	2	3	3	3
Secret place	1	0	0	0	0	0	0	0
Family or friend	1	0	1	0	0	0	0	0
Other	0	0	0	0	0	0	0	0
None of these	12	9	6	11	8	3	5	1
Do not know	12	7	7	5	8	3	1	0

Source of data: FinAccess (2019)

Female youth living in rural areas are satisfied with services offered by banks, mobile banking, SACCOs, and micro finance institutions. The proportion satisfied increases with age, implying that they engage more with these institutions. Females (31%) aged 30-34, are satisfied with banks, 20 per cent of them with mobile banking while 19 per cent are satisfied with micro-finance institutions.

A large proportion of female youth living in urban areas were satisfied with services provided by banks and mobile money providers. 40 per cent of females aged 30-34 are satisfied with banks, 14 per cent *chamas* and 19 per cent mobile money providers (Table 14).

Table 14: Proportion of female youth satisfied with financial providers by type (%)

	Female							
	Rural				Urban			
	15-19	20 -24	25 -29	30-34	15-19	20 -24	25 -29	30-34
Bank	37	34	27	31	49	42	48	40
Mobile banking	12	27	23	20	3	11	12	10
SACCO	2	7	2	6	2	2	3	9
Microfinance institution	4	12	18	19	0	0	1	1
A group/ *chama*	4	4	4	5	2	7	9	14
Mobile money provider	0	0	0	0	19	25	19	19
Mobile money agents	1	2	4	3	4	3	3	1
Insurance company	0	1	1	2	0	1	1	0
Moneylender/ Shylock	0	0	1	0	1	0	0	0
Secret place	0	0	0	0	0	0	0	0
Family or friend	2	0	1	0	0	0	0	0
Other	0	0	0	0	0	0	0	1
None of these	15	7	9	7	9	6	3	3
Do not know	24	8	10	8	11	3	3	1

Source of data: FinAccess (2019)

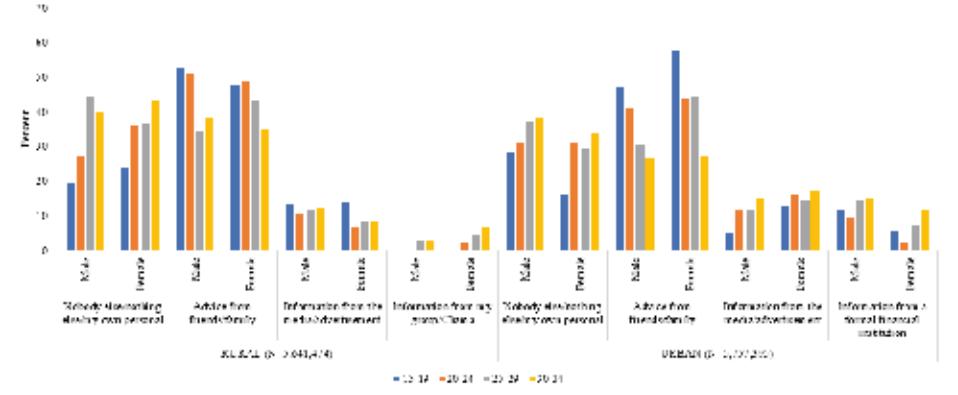
3.2.4 Access to agri-finance information, and level of awareness of different agri-finance channels among youth

Sources of financial information

Youth in rural areas use their own initiatives as sources of financial information while those in urban areas rely more on family/friends. Figure 10 shows that the main sources of financial information for the youth in both rural and urban areas is advice from friends/family, followed by own personal initiatives. Generally, advice from friends/family as a source of financial information decreases with age both for the rural and urban youth. For instance, youth females aged 15-19 have 57 per cent of their source of information from friends/family compared to their male counterparts at 47 per cent. However, in rural areas, males aged 15-19

have a higher percentage of their source of information as advice from friends/ family at 53 per cent in comparison to females who have 48 per cent. Another important source of financial information for the youth is their own initiative, which increases with age. For instance, youth aged 30-34 have 43 per cent for females in rural areas while it is 34 per cent in urban areas. For the case of males, those in rural areas have 40 per cent of source of information from their own initiatives while those in urban areas have 38 per cent.

Figure 10: Proportions of different sources of financial information (%)



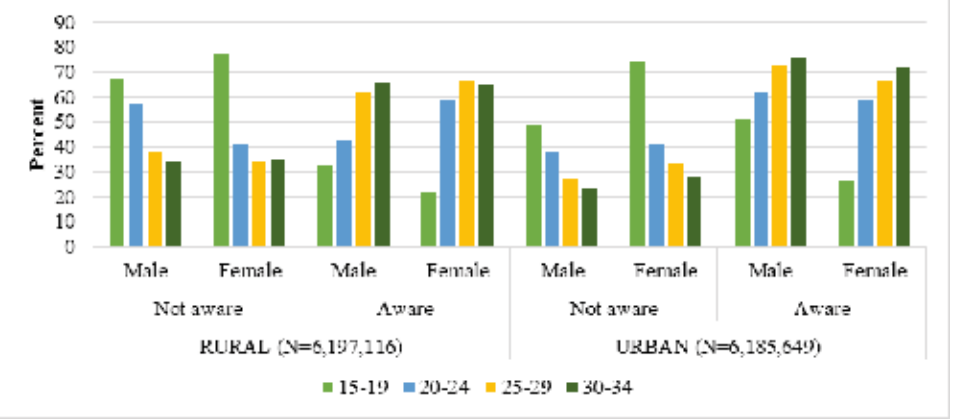
Source of data: FinAccess (2019)

Level of awareness of different agri-finance channels

Credit sources

On level of awareness of credit sources, the levels of awareness increases with age, in both the rural and urban areas. Males in urban areas have higher levels of awareness compared to the females, while in the rural areas it is the females that have higher awareness levels. 76 per cent of males aged 30-34 in urban areas are aware of credit sources, compared to 72 per cent of their female counterparts. 73 per cent of males aged 25-29 in urban areas are aware of credit sources compared to their rural counterparts where 62 per cent are aware (Figure 11).

Figure 11: Proportions of the level of awareness of credit sources (%)

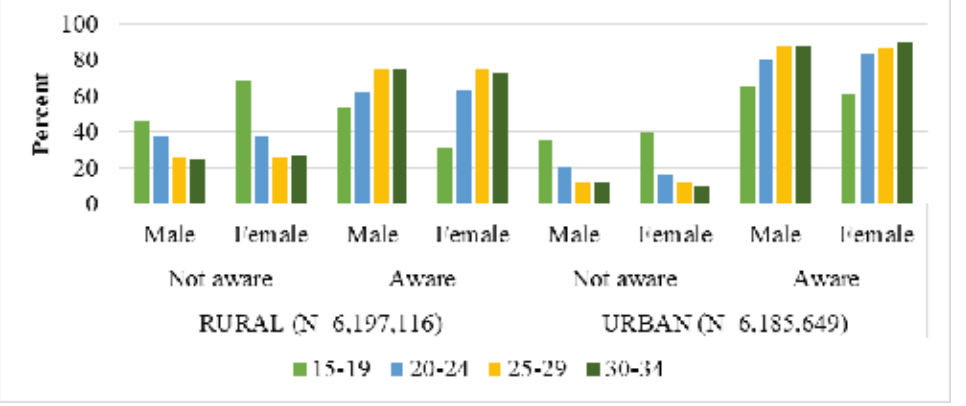


Source of data: FinAccess (2019)

Savings products

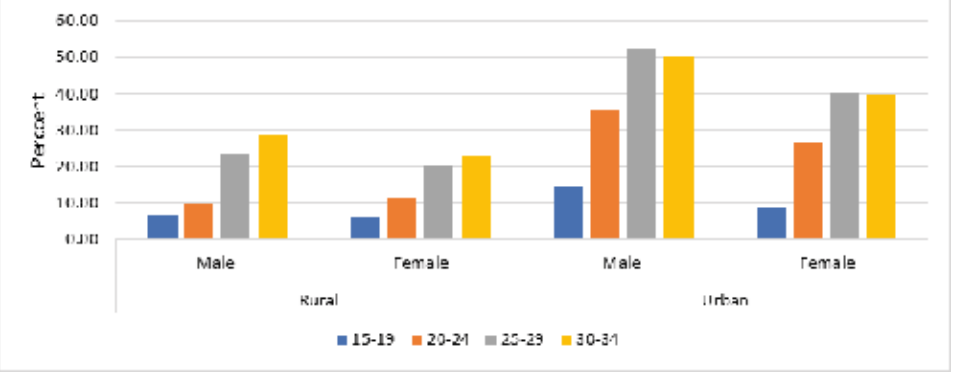
Figure 12 shows that a larger percentage of individuals have awareness of savings products compared to those who are not aware. Furthermore, the levels of awareness of savings products are higher in urban areas and lower in rural areas. The levels of awareness generally increases with age. For instance, females aged 30-34 living in urban areas have the highest levels of awareness of savings products at about 89 per cent, which is very close to their male counterparts who have 88 per cent level of awareness. The levels are much lower in rural areas since females have 73 per cent while males have 75 per cent. The other age cohort with relatively high levels of awareness of savings products is the 25-29 bracket. Females and males in urban areas have 87 per cent and 88 per cent, respectively, while in rural areas the percentages are at par at 74 per cent.

Figure 12: Proportions of the level of awareness of saving products (%)



Source of data: FinAccess (2019)

Figure 13: Proportions of the level of awareness of insurance (%)



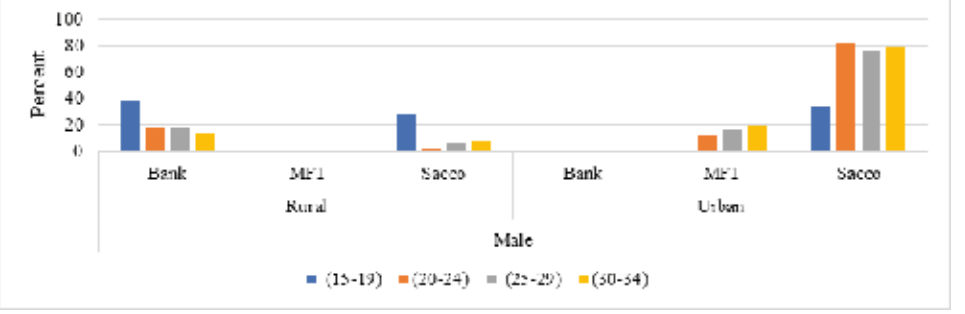
Source of data: FinAccess (2019)

On awareness to insurance among the youth, Figure 13 shows that youth in urban areas have higher levels of awareness compared to their rural counterparts. Furthermore, awareness to insurance increases with age both in rural and urban areas. The male youth tend to have higher awareness to insurance in comparison to their female counterparts. For instance, in urban areas, males aged 25-29 have highest awareness to insurance at 52 per cent compared to their female counterparts who have 41 per cent. This is high in relation to those in rural areas who have 23 per cent and 21 per cent, respectively. A possible explanation of why youth in urban areas have higher awareness to insurance than those in rural areas is due to the advertisement by insurance companies on billboards and other advertisement media, which is common in urban areas.

3.2.5 Different agri-finance channels used

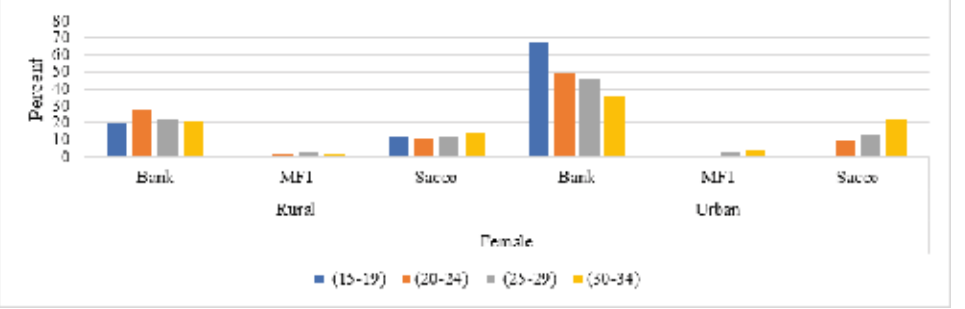
More male youth (77%) living in urban areas visit the physical location of the financial service provider compared to their rural counterparts, with SACCOs being the most frequented by the male youth above 20 years (Figure 14). Similarly, female youth (62%) living in urban areas visit the institutions compared to their rural counterparts. In both cases, the female youth visit banks with the urban proportion decreasing with age (Figure 15). Figure 16 shows that both female and male youth living in urban areas have a larger proportion using agents, with the age cohort 15-19 leading the pack. Regarding the use of Automatic Teller Machines (ATM), again it is the youth living in urban areas using this channel mainly due to the availability of ATMs in urban areas. An estimate 80 per cent of the age cohorts 20-24 and 30-34 for the youth male and 20-29 age cohort for the female youth use this channel (Figure 17). These cohorts living in urban areas also use mobile money banking. At least 10 per cent of youth living in rural and urban areas interact with the micro-finance institutions (MFI) using their mobile phones (Figure 18). Very few youth used internet banking as a channel to access financial services, this could be attributed low/slow internet connectivity especially in rural areas.

Figure 14: Proportions of male youth using bricking and mortar (%)



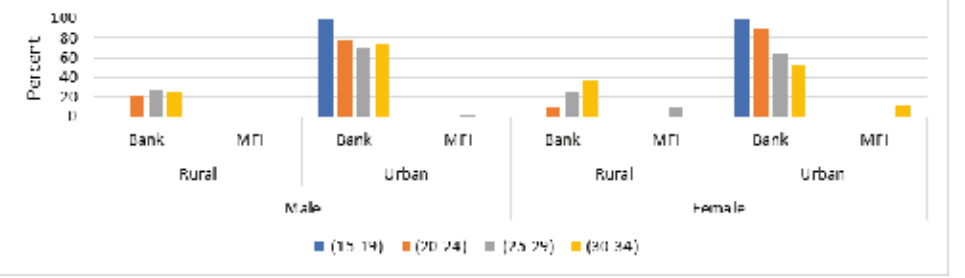
Source of data: FinAccess (2019)

Figure 15: Proportions of female youth using bricking and mortar (%)



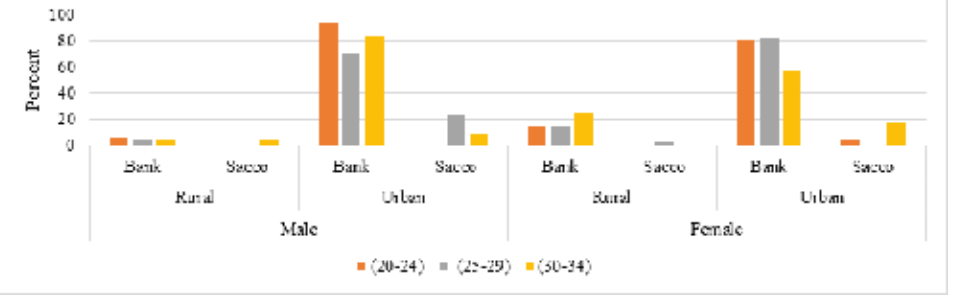
Source of data: FinAccess (2019)

Figure 16: Proportions of youth using agent banking services (%)



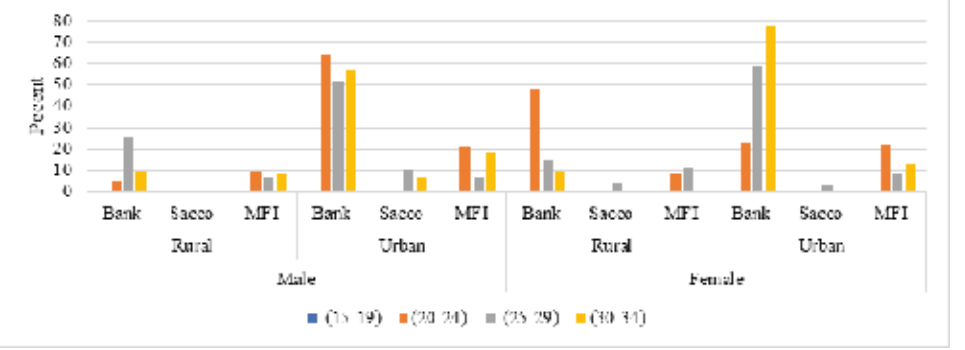
Source of data: FINAccess (2019)

Figure 17: Proportions of youth using the Automated Teller Machines (ATMs) (%)



Source of data: FinAccess (2019)

Figure 18: Proportions of youth using the mobile phones to access financial services (%)



Source of data: FinAccess (2019)

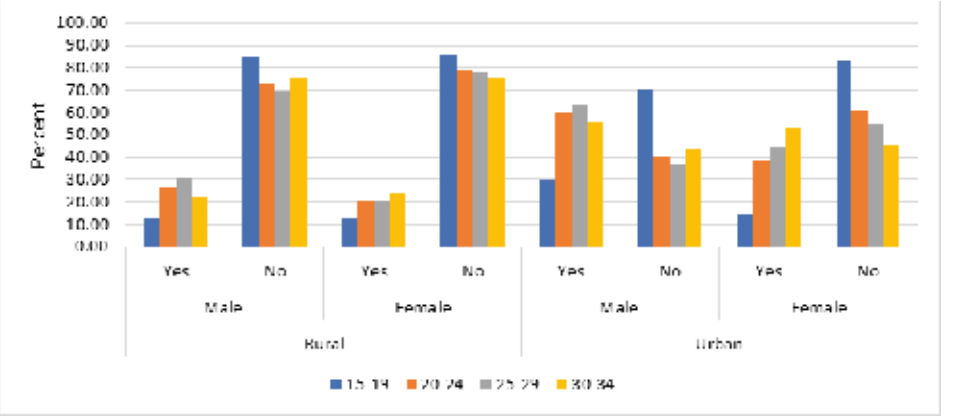
3.2.6 Financial literacy by youth

Financial literacy refers to the knowledge skills that allow people to manage their money wisely. Three indicators are used in this study to assess financial literacy among youth namely knowledge of CRB, interest rate computation and transaction costs.

Knowledge of CRB

Overall, youth male and female (estimated 60%) have no knowledge of CRB (Figure 19). Comparatively, male and female youth in urban areas have better understanding of CRB compared to their counterparts in rural areas. In rural areas, male youth aged 25-29 (30%) have a better understanding of CRB than female youth (20%) of the same age category. In urban areas, male youth aged 25-29 (63%) have a better understanding of CRB than female youth (44%).

Figure 19: Proportion of youth with knowledge about Credit Reference Bureau (%)

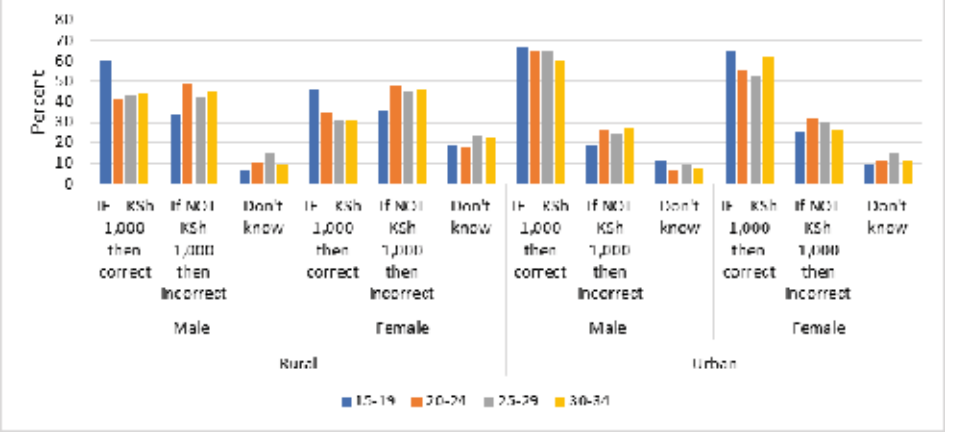


Source of data: FinAccess (2019)

Interest rate computation among youth

In terms of financial numeracy, youth in age cohort 15-19 (over 46%) in both rural and urban areas have higher ability to compute interest rates on loan facilities compared to other cohorts (Figure 20). Male and female youth in all the age cohorts in urban areas have better numeracy skills compared to those in rural areas. This is an indicator that more needs to be done to promote numeracy skills among the youth in rural areas.

Figure 20: Proportion of youth able to compute interest rate (%)

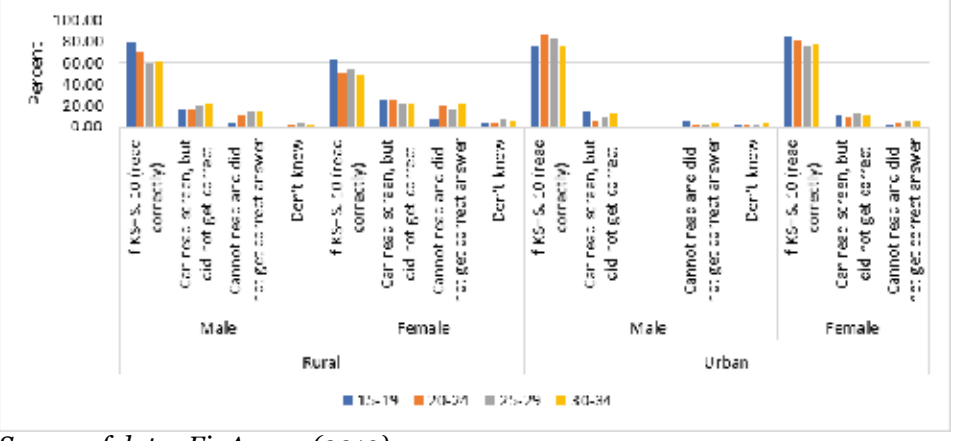


Source of data: FinAccess (2019)

Cost of transactions

In terms of knowledge about the terms and conditions, including cost, insurance, conveyancing and processing costs, participants were requested to read out loud a message on the screen as it appears in mobile money transaction and identify the transaction cost from the message. Over 48 per cent of the youth in both rural and urban areas were able to read and interpret the costs of mobile money transactions (Figure 21). Based on this indicator, just as is with the others above, on average there are higher levels of financial literacy among youth in urban areas (77%) compared to those in rural areas (55%).

Figure 21: Proportion of youth able to read and understand the cost of transactions (%)



Source of data: FinAccess (2019)

3.2.7 Number of youths trained to engage in income generating activities

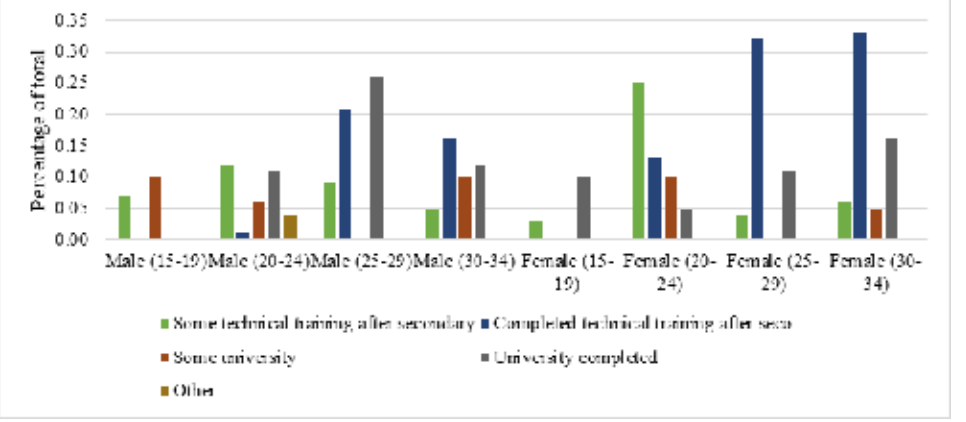
The presumption made here is that training which leads to income generating activities (IGAs) is the training that has offered individuals some basic skills required at the place of work. The focus is on post-secondary training, which is expected to offer some level of minimum skills to equip them better with skills for work place.

Percentage of youth completed higher than secondary education in rural areas

Overall, only 3.23 per cent of the youth male and female living in rural areas have some level of higher education than secondary education. An interesting

finding is that more females (1.73%) than males (1.50%) who live in rural areas had completed higher than secondary school. The bulk of the population was in some primary and primary completed levels of education. Figure 22 presents the percentage of youth who have completed higher than secondary school in rural areas.

Figure 22: Percentage of youth completed higher than secondary education in rural areas

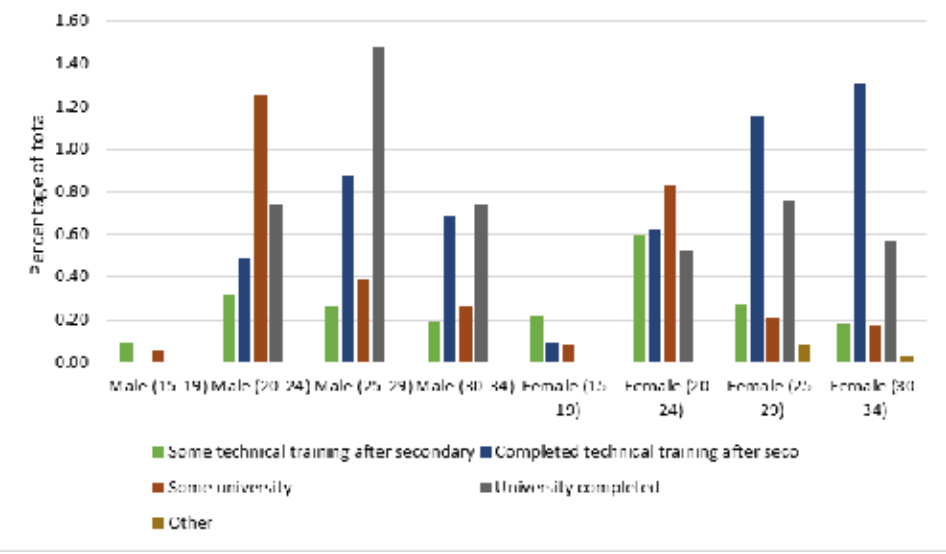


Data Source: FinAcess (2019)

Percentage of youth completed higher than secondary education in urban areas

Overall, 15.5 per cent of the youth male and female living in urban areas have higher than secondary education in relation to the rural areas with only 3.2 per cent, an indication that more youth in urban areas are proceeding with post-secondary education than those in rural areas. There is an almost equal parity of percentages of males and females in urban areas, with higher than secondary school education at 7.84 per cent for males and 7.69 per cent for females. The bulk of the population in urban areas have completed secondary and primary levels of education. Figure 23 presents the percentage of youth who have completed higher than secondary school in urban areas.

Figure 23: Percentage of youth completed higher than secondary education in urban areas



Source of data: FinAccess (2019)

3.2.8 Collateral and access to agri-finance

Results show that more female youth have access to various collateral items (15%) compared to their male counterparts (4%). The data shows that 8 per cent of females aged 30-34 have access to various collateral instruments compared to 2 per cent of males aged 30-34. Furthermore, use of various collateral instruments increases with age among the youth in rural areas. These findings corroborate the fact that the youth living in rural areas are mainly excluded in regard to financial access, thus the limited use of collateral (Table 15).

Table 15: Proportion of youth living in rural areas using collateral for loans from formal prudential financial institutions (%)

Rural								
	Male				Female			
Collateral type	**(15-19)**	**(20-24)**	**(25-29)**	**(30-34)**	**(15-19)**	**(20-24)**	**(25-29)**	**(30-34)**
Land/ title deed/ house	0.00	0.00	0.00	0.00	0.00	0.00	5.65	3.63
Movable assets	0.00	0.00	0.77	0.61	0.00	3.64	1.36	6.48

Household assets	0.00	0.00	0.48	0.00	0.00	0.00	0.00	0.31
Salary/ income	0.00	0.00	0.53	1.14	0.00	0.00	1.19	3.02
Guarantor	0.89	0.00	0.00	3.70	0.00	0.00	1.81	3.73
Group collateral	0.00	0.00	1.42	1.07	0.00	0.00	1.34	4.14
No collateral needed	0.00	1.03	0.78	0.00	1.63	1.59	6.44	1.44

Source of data: FinAccess (2019)

In urban areas, again female youth have access to various collateral items compared to their male counterparts. However, for the age cohort 30-34, there was no difference between the male youth (40%) and the female (39%); all have access to various collateral instruments. Furthermore, access to various collateral instruments increases with age among the youth in urban areas, with youth aged 15-19 not having access to collateral (Table 15).

Table 16: Proportion of youth living in urban areas using collateral for loans from formal prudential financial institutions (%)

Urban								
	Male				Female			
Collateral type	**Male (15-19)**	**Male (20-24)**	**Male (25-29)**	**Male (30-34)**	**Female (15-19)**	**Female (20-24)**	**Female (25-29)**	**Female (30-34)**
Land/ title deed/ house	0.00	0.00	0.00	1.13	0.00	0.31	0.46	0.37
Movable assets	0.00	0.00	0.00	0.41	0.00	0.30	0.00	13.05
Household assets	0.00	0.00	0.00	1.80	0.00	0.00	0.57	40.07
Salary/ income	0.00	6.06	5.63	38.18	0.00	3.83	1.18	3.90
Guarantor	0.00	0.00	2.97	69.56	0.00	0.00	42.43	24.15
Group collateral	0.00	0.00	0.00	0.84	0.00	0.00	0.00	13.54
Shares in sacco/ savings	0.00	0.00	0.71	1.79	0.00	0.00	0.00	2.56
Other	0.00	0.00	0.00	0.00	0.00	100	56.77	15.30
No collateral needed	0.00	0.14	2.02	7.56	0.00	0.32	5.86	4.20

Source of data: FinAccess (2019)

3.2.9 Key production activities/value chains, the markets and agri-financing

Youth are involved in agricultural value chains activities at different stages of the value chain. While most of the youth in the rural areas participate as producers, there are increasing numbers of them that participate in the assembly and marketing of produce at the farm level. The results give an indication that youth can be involved in several agricultural activities along the value chain, including production, post-harvest handling, distribution and marketing of agricultural products. Specifically, youth aged 30-34 living in rural areas are the most active age cohort and use agri-finance for agricultural production activities (505,906) and livestock trade in products (75,947). More female youth are involved as agricultural producers (21%) and livestock trade (22%), and the males agriculture producers (17%) and livestock trade (20%). The various broad categories of value where the youth are involved in are shown in Table 17.

Table 17: Proportion of youth living in rural areas accessing agri-finance for different agricultural production activities (%)

Gender		Agriculture Producers	Livestock traders (products)	Food Crop	Cash crop	Fish	Livestock
Male	15-19	7	17	7	4	-	4
	20-24	4	4	6	-	-	-
	25-29	16	7	16	20	61	19
	30-34	17	20	15	24	-	21
Female	15-19	0	2	-	-	-	-
	20-24	12	4	13	14	-	2
	25-29	22	25	21	24	39	24
	30-34	21	22	22	15	-	31
Total (%)		100	100	100	100	100	100
Total (Numbers)		505,906	75,947	351,676	104,337	2,964	112,423

Data Source: FinAccess (2019)

Table 18 shows that for the youth living in urban areas, compared to their rural counterparts, fewer numbers are involved in agriculture production (104,232) and livestock trade (21,469). More male youth (30-34) use agri-finance for trade activities (53%) compared to production activities (27%), while for the same age cohort only 18 per cent of the female youth engage in agricultural production activities. This points out to the potential that exists in peri-urban agriculture.

Table 18: Proportions of youth living in urban areas accessing agri-finance for different agricultural production activities (%)

Gender		Agriculture Producers	Livestock traders (products)	Food Crop	Cash crop	Fish	Livestock
Male	15-19	-	-	-	-	-	-
	20-24	10	-	15	-	-	-
	25-29	27	24	33	38	-	27
	30-34	27	53	10	27	-	54
Female	15-19	-	-	-	-	-	-
	20-24	1	-	1	-	-	-
	25-29	17	23	22	28	100	4
	30-34	18	-	19	7	-	14
Total (%)	100	100	100	100	100	100	100
Total (Numbers)		104,232	21,469	69,520	17,345	1,142	30,573

Data Source: FinAccess (2019)

3.3 Summary: Youth and Access to Agri-Finance

Access to finance: A small percentage of youth (20.9%) have access to both formal prudential and formal non-prudential services and products as a percentage of the total population of those who either access or are excluded in both urban and rural areas.

Number of financial institutions giving loans to youth: Formal prudential services and products: (i) SACCOs: 114 institutions were sampled, 33.3 per cent gave loans to the youth, with only 8.7 per cent of them giving agri-business loans; (ii) commercial banks: 28 were sampled, 28.6 per cent gave loans to the youth with 14.3 per cent providing agri-business loans; (iii) The sampled micro-finance banks were 5 where only 0.2 per cent gave loans to the youth. Formal registered services and products were 27 microfinance institutions, 51.9 per cent of them gave loans to the youth and of these 11.1 per cent provided agri-business loans. Formal non-prudential services and products included mobile banking which had 6 institutions, 83.3 per cent of which gave loans to the youth and of these 33.3 per cent provided agri-business loans. The other category included is the informal/ excluded where 6 options were available to the youth, namely: money lender/ shylock, *chama*/group, family, friend or neighbour loan, shopkeepers/supply chain credit, and employers. Overall, the youth seem to obtain agri-business loans from mobile banking platforms than any other source.

The number of youth taking loans: Youth in rural areas (371,778) access loans from institutions offering formal prudential and formal non-prudential services and products compared to youth in urban areas (136,616). However, regarding proportions, more urban youth (31%) access loans from formal institutions compared to rural youth (18%). Female youth in rural areas (9%) access more loans than their male counterparts (6%). Contextually, access to finance from formal institutions by the youth is a policy issue, although those in urban areas have more access than those in rural areas.

Number of loans: A higher percentage of the youth only take one loan, and for youth living in both rural and urban areas, more women above the age of 20 take loans compared to the male youth.

Access to loans for agriculture: More youth in rural areas (87.8%) access loans compared to those in urban areas (12.2%). This finding is expected since most agricultural activities take place in rural areas. Further, access to loans increases with age, female youth in rural areas (69.8%) take more loans compared to their male counterparts (30.2%). In terms of **the amount borrowed for agricultural loans**, youth in urban areas borrow more, on average (Ksh 51,166) compared to those in rural areas (Ksh 46,794). Furthermore, the average amount of agricultural loans is higher for males (Ksh 62,007) compared to women (Ksh 35,953). Informed by this finding, female youth seem to be facing more bottlenecks in accessing loans for agriculture compared to male youth.

Sources of agri-finance among the youth was assistance/gift from family/friend and income from salary/business. The age cohort 30-34 years living in rural areas had a wide range of agri-finance sources, with income from salary/business as the most prominent at 42 per cent (male) and 27 per cent (female).

Needs/constraints: As indicated earlier, more youth living in rural areas take agri-business loans compared to those in urban areas **as these loans are used to meet day-to-day farm activities such as buying farm inputs and assets, expanding their farms, and diversifying their agri-business activities**. Notably, there are more female youth taking agri-business loans than male youth. Some of the constraints that have been highlighted across the different youth age cohorts as to why they are not able achieve their main goal is running out of money for both the rural and urban youth. In rural areas, 88 per cent of males and 64 per cent of female youth aged 25-29 years reported running out of money as the reason for not achieving their main goal, implying a disparity among this age group. The study then further pursued reasons why the youth were denied credit. The main reasons were low savings and no credit history.

Priorities for the youth when looking for finance include: fast/easy to access; cheap/affordable and reliability of funds.

Sources of financial information: Youth in rural areas use their own initiatives as sources of financial information while those in urban areas rely more on family/ friends. Level of credit source awareness increases with age in both rural and urban areas. Males in urban areas have higher levels of awareness compared to females. In rural areas, females have higher awareness levels compared to males. Regarding savings products, a larger percentage of individuals have awareness of savings products compared to those who are not aware. Furthermore, the levels of awareness of savings products are higher in urban areas and lower in rural areas. Insurance awareness increases with age, both in the rural and urban areas. The male youth tend to have higher awareness to insurance in comparison to their female counterparts. Essentially, higher levels of awareness are reported in urban than rural areas, an indicator that access to information in the former is better than the latter.

Different agri-finance channels used: More male youth (77%) living in urban areas visit the physical location of the financial service provider compared to their rural counterparts, with SACCOs being the most frequented. Regarding the use of Automatic Teller Machines (ATMs), again it is the youth living in urban areas using this channel mainly due to the availability of ATMs in urban areas. At least 10 per cent of youth living in rural and urban areas interact with microfinance institutions (MFIs) using their mobile phones, an indicator that technology is an enabler to access to finance.

Financial literacy: Overall, youth male and female, an estimated 60 per cent, have no knowledge of Credit Reference Bureau (CRB). In terms of financial numeracy, youth in age cohort 15-19 (over 46%) in both rural and urban areas have higher ability to compute interest rates on loan facilities compared to other cohorts. Male and female youth in all the age cohorts in urban areas have better numeracy skills compared to those in rural areas. Over 48 per cent of the youth in both rural and urban areas were able to read and interpret the costs of mobile money transactions.

Access to various forms of collateral: Results show that female youth have access to various collateral items (15%) compared to their male counterparts (4%). The access to various collateral instruments increases with age.

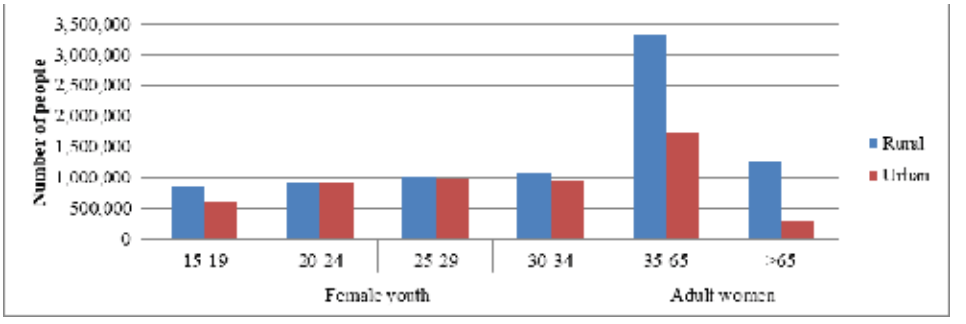
Key production activities: Youth aged 30-34 living in rural areas are the most active age cohort and use agri-finance for agricultural production activities (505,906) and livestock trade in products (75,947). Specifically, more female youth are involved in agricultural production (21%) and livestock trade (22%) while the males agriculture producers (17%) and livestock trade (20%).

3.4 Women and Agri-Finance

3.4.1 Description of the data set

In this study, women are categorized according to their age cohorts, adapted from the Kenya National Bureau of Statistics population distribution of the age cohort namely: 15-19; 20-24; 25-29; 30-34; 35-65 and above 65 by residence (Figure 24).

Figure 24: Number of women respondents by residence



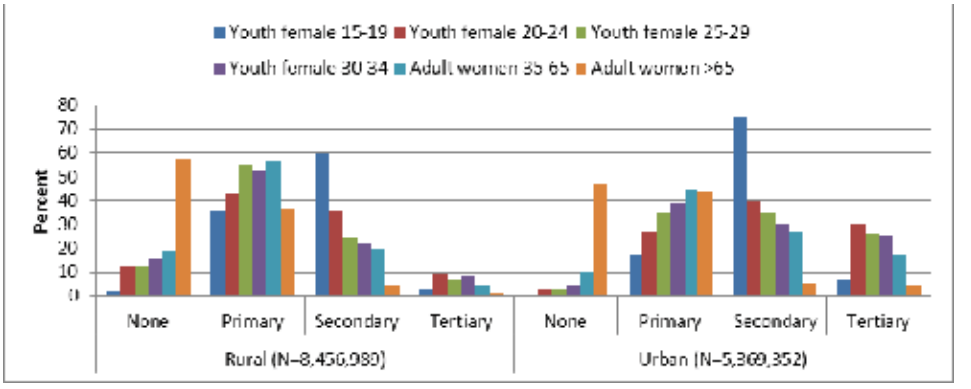
Source of data: FinAccess (2019)

There were more women aged 35-65 who participated in the study as compared to those aged above 65. The total number of women respondents aged 35-65 who live in rural areas was 3,326,544 while those in urban areas was 1,723,325. Thus, the total women respondents aged 35-65 were 5,049,869, with 66 per cent in rural areas and 34 per cent in urban areas. There is a larger proportion of women aged 35-64 (76.5%) compared to women aged above 65 (23.5%) with most of the women in both categories staying in the rural areas.

Level of education for women

A large proportion of women aged 35-65 have primary level education. Women aged 30-34 have more of primary level of education followed by those with secondary level of education. Across all the age groups, women living in rural areas have less education, with a few having tertiary level, unlike their urban counterparts who most have primary level education, secondary and tertiary level education (Figure 25).

Figure 25: Proportions for the level of education for women (%)



Source of data: FinAccess (2019)

3.4.2 Status of access to agriculture finance by women

The study categorizes access to finance as outlined in the FinAccess Survey Report (2019) shown in Annex Table A1.

Generally, there is low access to formal financial institutions among women living in both rural (excluded 66%) and urban (excluded 51%) areas. The preferred financial institutions in rural areas are informal, such as *chamas* (19%), formal non-prudential such as mobile money (8%) and formal prudential, such as banks (7%). For women living in urban areas, informal financial institutions were still the most preferred sources of finances among women (28%) - Table 19.

Table 19: Proportion of women accessing financial services and products (%)

Age Cohort		Rural (N= 3,886,015)				Urban (N= 668,412)			
		Excluded (66%)	**Formal (non-prudential) (8%)**	**Formal (prudential) (7%)**	**Informal (19%)**	**Excluded (51%)**	**Formal (non-prudential) (8%)**	**Formal (prudential) (13%)**	**Informal (28%)**
Youth female	15-20	1	4	8	8	32	13	1	4
	20-25	0	1	1	2	4	1	0	1
	25-30	0	0	1	1	3	1	0	0
	30-35	0	2	2	2	11	2	0	2
Adult women	35-66	1	3	5	6	26	10	1	3
	>66	0	1	3	1	4	0	0	1

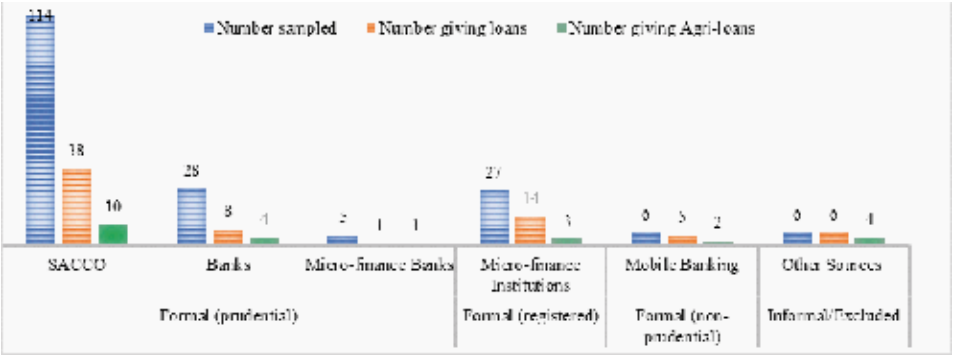
Source of data: FinAccess (2019)

Access to loans

Number of financial institutions giving loans to women disaggregated by type

Figure 26 shows the categories of institutions providing loans to women. For institutions offering formal prudential products and services, SACCOs were the largest in number (114) of which 38 were giving loans, 10 of them giving agri-business loans. Similarly, of the 28 banks sampled, 8 gave loans to women with 4 providing agri-business loans. The other category of interest is the informal/ excluded (Figure 26), where the number six (6) represents the different options available to the women, not the actual number, namely: money lender/shylock, *chama*/group, family, friend or neighbour loan, shopkeepers/supply chain credit, and employers.

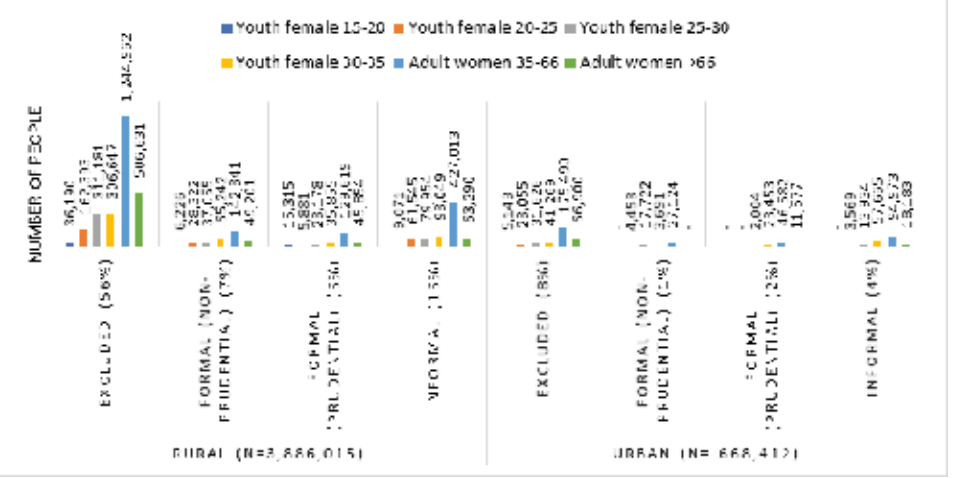
Figure 26: Number of financial institutions giving loans to women



Data Source: FINAccess (2019)

The number of women accessing loans from financial institutions can be an indicator of the participation of women in the financial space. Figure 27 shows the number of women taking loans from the institutions. Very few women take loans from the formal prudential and formal non-prudential institutions (720,696) compared with the total number of women accessing loans (4,554,427).

Figure 27: Type of financial institutions giving loans to women disaggregated by number



Source of data: FinAccess (2019)

Most women living in rural and urban areas take one loan (588,720) with the age cohort 35-65 being the most active. This age cohort constitutes a third of women population taking loans (Table 20). This is also the economically active segment of the population.

Table 20: Number of loans taken disaggregated by age

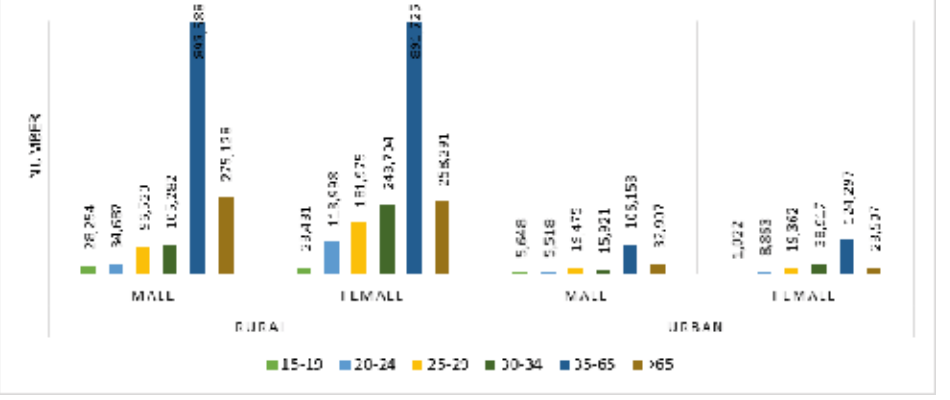
	Age Cohort						
Number of Loans	15-19	20-24	25-29	30-34	35-65	Above 65	Total
	Rural						
1	7,657	-	33,425	18,211	108,093	19,016	404,003
2	-	9,742	2,979	8,667	21,709	6,706	106,402
3	-	11,415	7,512	3,255	28,450	3,269	72,550
More than 4	-	2,129	3,116	-	6,560	7,765	51,044
Number of Loans	**Urban**						
1	-	-	6,989	20,887	60,041	1,541	184,718
2	-	4,044	-	1,130	18,597	-	54,679
3	-	3,667	-	2,032	-	-	13,718
More than 4	-	-	5,454	1,737	2,243	-	27,212

Source of data: FinAccess (2019)

Access to credit for agriculture

The number of women with access to loans for agri-business is higher for women in rural areas (1,150,016) compared to those in urban areas (147,804). Women aged 35-65 in rural areas have higher levels of access (891,725) compared to the more elderly women aged above 65 (258,291). This finding can be explained by the fact that women aged 35-65 are more actively engaged in agriculture compared to the more elderly women aged above 65. Generally, women have almost similar levels of access to loans for agri-business with their male counterparts in rural areas, but in urban areas women have higher access levels than the men (Figure 28).

Figure 28: Number of women accessing loans from any financial institution for agri-business



Source of data: FINAccess (2019)

Table 21 shows the average loan amount taken for agricultural purposes; the age cohort 35-65 borrow on average the largest amounts (Ksh 9,109 - rural and Ksh 9,540 - urban) despite the area of residence, with the rural population recording a higher maximum (Ksh 439,000). This is an expected finding because women aged 35-65 are still economically active than the more elderly women aged above 65. These women aged between 35 and 65 living in rural areas then use the money for different purposes, which includes day to day running of the farm (58,690), purchasing of inputs (30,975), diversification of far activities (26,137) and expansion of the farm land (27,351). As expected, there is limited agricultural activity in urban areas (Figure 30).

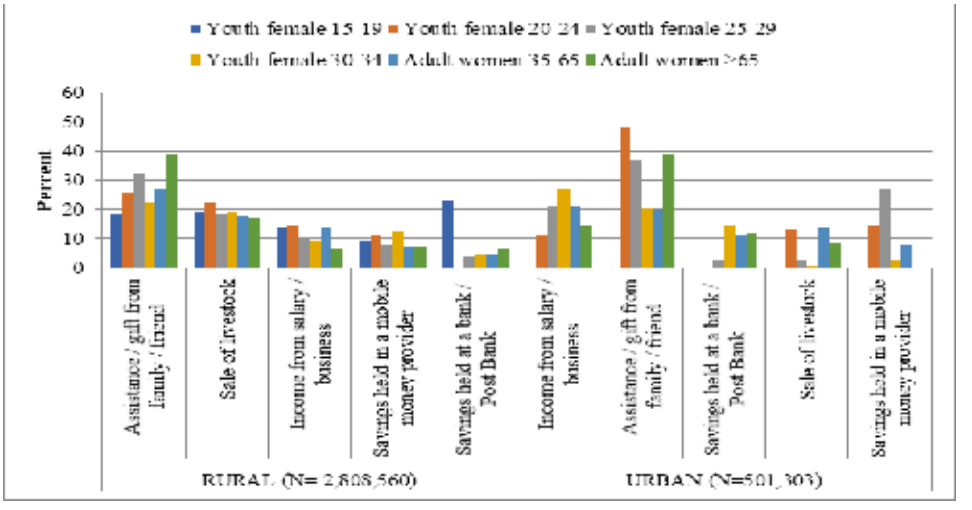
Table 21: Average amount for agricultural loans by age and gender (Ksh)

Age Cohort	Rural			Urban		
	Female			Female		
	Mean	Std. Dev	Max	Mean	Std. Dev	Max
15-19	2,687	5,715	20,000	3,500	4,950	7,000
20-24	5,665	10,415	55,000	1,171	2,299	7,300
25-29	6,814	17,739	150,000	2,053	3,969	15,040
30-34	7,930	17,734	180,000	6,133	10,551	40,000
35-65	9,109	32,269	439,000	9,540	30,671	196,500
>65	4,929	19,216	206,000	1,843	10,010	60,200

Source of data: FINAccess (2019)

The main sources of agri-finance among women living both in urban and rural areas is assistance/gift from family/friend. For those living in rural areas, this cohort recorded a variety of sources, including savings in a bank. For all age cohorts, the women receive agri-finance for a wide range of sources. The difference between those living in rural and urban areas is the proportions, which is determined by the level of activity (Figure 29).

Figure 29: Proportions for the different sources of agri-finance (%)



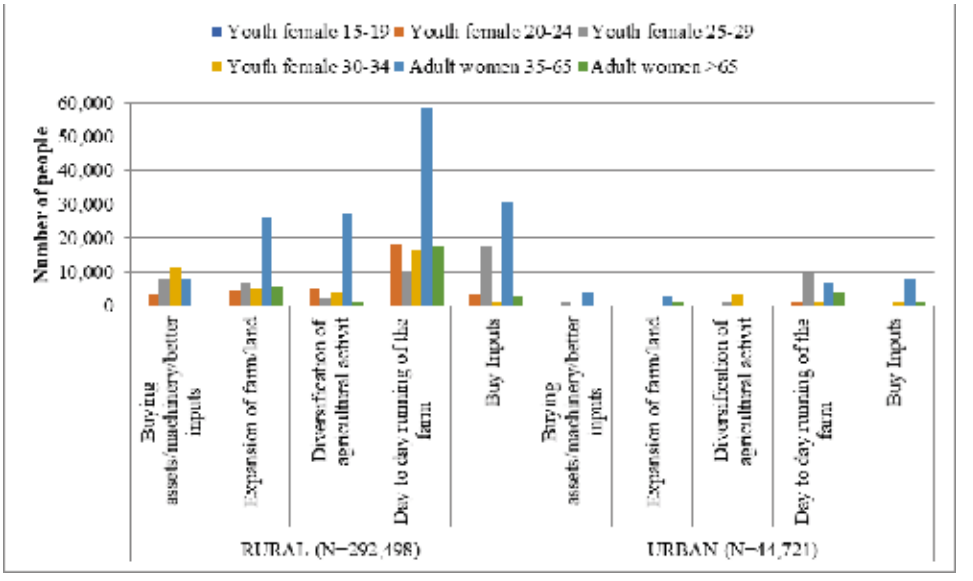
Source of data: FinAccess (2019)

3.4.3 Needs, constraints, priorities and the level of satisfactory in agri-financing

Needs

Women living in rural areas take more agri-business loans compared to those in urban areas as shown in Figure 30. Most of the loans are used to meet day to day farm activities, buy farm inputs and assets, expand farms and diversify agri-business activities. Notably, the age cohort 35-65 need the loans for day to running of the farm (58,690), purchasing of inputs (30,975), diversification of far activities (26,137), and expansion of farm land (27,351). Women in urban areas do not borrow much for agri-business; the numbers are 2,000 on average.

Figure 30: Number of women using agricultural loans for different purposes



Source of data: FinAccess (2019)

Constraints

Some of the reasons as to why women living in rural areas do not achieve their main goal is running out of money, which was stated as the predominant reason. For instance, in rural areas, 77 per cent of females aged 20-24 and 30-34 stated running out of money as the reason for not achieving their main goal, while 72

per cent of those aged 35-65 stated a similar reason for nonfulfilment of their goal (Table 22).

Table 22: Proportions for not achieving your main goal for women living in rural areas (%)

Run out of money	Health problems	The loss of income	Theft or loss of livestock	Harvest failure or loss of crop	A drought, poor rainfall	Death	Increase in Cost of Basic goods	
Females and Women - Rural								
15-19	40	60	0	0	0	0	0	0
20-24	77	8	3	0	0	0	0	6
25-29	64	6	4	0	0	0	10	12
30-34	77	5	5	0	0	3	0	8
35-65	72	11	5	0	2	0	0	5
> 65 yrs	57	43	0	0	0	0	0	0

Source of data: FINAccess (2019)

Table 23: Proportions for not achieving your main goal for women living in urban areas (%)

	Run out of money	Health problems	Accident or injury	Harvest failure or loss of crop	Death	The loss of a lot of money	Increase in Cost of Basic goods	Denied loan/ assistance
15-19	72	0	0	0	0	0	8	0
20-24	81	3	0	0	0	0	6	0
25-29	91	1	2	0	0	0	5	0
30-34	84	7	0	1	0	6	2	0
35-65	69	5	1	0	0	5	9	1
> 65 yrs	100	0	0	0	0	0	0	0

Source of data: FINAccess (2019)

In urban areas, just like in rural areas, females and women report running out of money as the main reason for not achieving their goal. For instance, the entire sample of women aged above 65 years in urban areas report running out of money as the main reason for not achieving their goal, while 91 per cent of those aged 25-29 gave a similar reason. For the case of females aged 30-34, 84 per cent of them reported the same reason while the percentage was 81 per cent for those aged 20-

24. Generally, females and women in urban areas mainly report running out of money as the main reason for their non-achievement of goal.

Table 24: Proportions for credit denial for women living in rural areas (%)

	Savings too low	Still had debt to pay off	Bad/no credit history	Was not given a reason	Lack of collateral	Lack of records	Income is low and unbale to repay	Others
15-19	0	0	0	0	0	0	0	0
20-24	49	4	3	17	0	0	0	27
25-29	27	28	30	8	0	7	0	0
30-34	8	31	34	19	0	0	0	8
35-65	17	15	11	13	13	6	7	18
> 65 yrs	0	32	0	35	0	0	0	33

Source of data: FinAccess (2019)

Among the reasons why women living in rural areas were denied credit is that their savings were too low; this was the case for 20-24 at 49 per cent and women aged above 65 years (35%). Another reason for being denied credit was bad/no credit history, especially for females aged 25-29 (30%) and those aged 30-34 (34%). Bad debt to pay off was also another reason for women aged above 65 and those aged 30-34 (Table 24).

Table 25: Proportions for credit denial for women living in urban areas (%)

	Bad/no credit history	Savings too low	Was not given a reason	Still had debt to pay off	Lack of collateral	Lack of records	Income is low and unable to repay	Others
15-19	36	0	0	0	0	0	0	64
20-24	20	22	16	7	6	4	9	16
25-29	14	19	24	3	1	12	6	21
30-34	47	4	16	9	0	0	4	20
35-65	19	16	18	17	12	1	6	11
> 65	0	0	0	100	0	0	0	0

Source of data: FinAccess (2019)

Women living in urban areas recorded bad/no credit history as the major reason. A large proportion (64%) of females aged 15-19 stated other reasons for being denied credit, while 36% of them stated too low savings. Similarly, 47 per cent of females in urban areas aged 30-34 stated bad/no credit history as reason for credit denial. A surprising reason that also features prominently for youth in urban areas is that a relatively big percentage of them are not given a reason as to why they have been denied credit. For women aged above 65 years in urban areas, the entire sample stated still having a debt to pay as the main reason for their credit denial.

Priorities

Generally, a larger percentage of younger females prioritize fast/easy access to finance compared to the more aged females and women. Other reasons include no choice/required by group and reliability of funds. For instance, 86 per cent of them aged 15-19 stated fast/easy access to finance as the main priority. This is followed by 67 per cent of females aged 20-24 who gave a similar reason, while 57 per cent and 56 per cent of females aged 25-29 and 30-34, respectively, stated their priority as fast/easy access. 52 per cent of women aged 35-65 and 51 per cent of those aged above 65 also have fast/easy access to finance as their priority (Table 26).

Table 26: Proportions for priorities for women living in rural areas when sourcing for finance (%)

Fast/easy to access	No choice/ required by group	Cheap/ affordable/	lowest fees	Reliable/I know funds will be available	Feels most comfortable/ trust	Privacy	Less paperwork/ documents required	I didn't want to use my own money
15-19	86	7	0	7	0	0	0	0
20-24	67	17	7	4	3	2	0	0
25-29	57	26	2	8	5	2	0	1
30-34	56	27	4	10	3	0	0	0
35-65	52	25	5	10	5	2	0	0
> 65	51	31	3	7	8	1	0	0

Source of data: FinAccess (2019)

For the case of females and women in urban areas, just like their counterparts in the rural areas, results indicate that the main priorities include: fast/easy access, no choice/required by group, and reliability of funds. For instance, 59 per cent of women aged above 65 prioritized fast/easy access to finance, followed by 58 per

cent of females aged 30-34 and 57 per cent of those aged 25-29, respectively, who had a similar priority (Table 27).

Table 27: Proportions for priorities for women living in urban areas when sourcing for finance (%)

	Fast/easy to access	No choice/ required by group	Feels most comfortable/ trust	Reliable/I know funds will be available	Cheap/ affordable/ lowest fees	Privacy	Less paperwork/ documents required	Need to keep the option open for future
15-19	44	56	0	0	0	0	0	0
20-24	44	16	3	37	0	0	0	0
25-29	57	13	11	17	2	0	0	0
30-34	58	10	7	20	4	0	0	2
35-65	51	31	6	8	2	1	1	0
> 65	59	19	2	14	2	2	0	3

Source of data: FinAccess (2019)

Level of satisfactory

Results indicate that of the females living in rural areas, aged 20-24, 34 per cent are satisfied with banks, 27 per cent of them with mobile money provider, while 12 per cent are satisfied with a group/*chama*. Turning to the case of female youth in urban areas, 48 per cent of them aged 25-29 are satisfied with banks, 19 per cent with mobile money provider and 12 per cent of them are satisfied with mobile banking. For female youth aged 20-24 in urban areas, results show that 42 per cent are satisfied with banks, with 25 per cent being satisfied with mobile money provider and only 11 per cent of them have satisfaction with mobile banking. Micro-finance institutions received higher satisfaction among females in rural areas while mobile money providers received higher satisfaction among females in urban areas. For women aged 35-65, they are more satisfied with banks (42%), mobile money providers (17%) and a group/*chama* (15%), whereas banks (26%), mobile money provider (18%) and group/chama (12%) confer upon more satisfaction among the male youth. Generally, as was the case among male youth, "none of these" and "do not know" are having high percentages among all age groups of females, and more so for women aged above 65 (Table 28). This is an interesting finding because most of the women are not having financial access i.e they are excluded. This finding can be attributed to those that used the services.

Table 28: Proportion of women satisfied with financial providers by type (%)

	Rural						Urban					
	15-19	20 -24	25 -29	30-34	35-65	>65	15-19	20 -24	25 -29	30-34	35-65	>65
Bank	37	34	27	31	29	25	49	42	48	40	42	26
Mobile money provider	12	27	23	20	17	11	19	25	19	19	17	18
Mobile banking	2	7	3	6	2	1	3	11	12	10	6	1
SACCO	4	4	4	5	10	7	2	2	3	9	6	4
Micro-finance Institution	0	1	2	2	1	1	0	0	1	1	2	0
A group/*chama*	4	12	18	19	20	11	2	7	9	14	15	12
Mobile money agents	1	2	4	3	2	1	4	3	3	1	3	2
Insurance company	0	0	0	0	0	0	0	1	1	0	0	0
Moneylender/ Shylock	0	0	1	0	0	0	1	0	0	0	0	0
Secret place	0	0	0	0	0	1	0	0	0	0	0	0
Family or friend	2	0	1	0	0	0	0	0	0	0	0	1
Other	0	0	0	0	0	0	0	0	0	1	0	0
None of these	15	7	9	7	8	18	9	6	3	3	5	15
Do not know	24	8	10	8	10	25	11	3	3	1	3	20

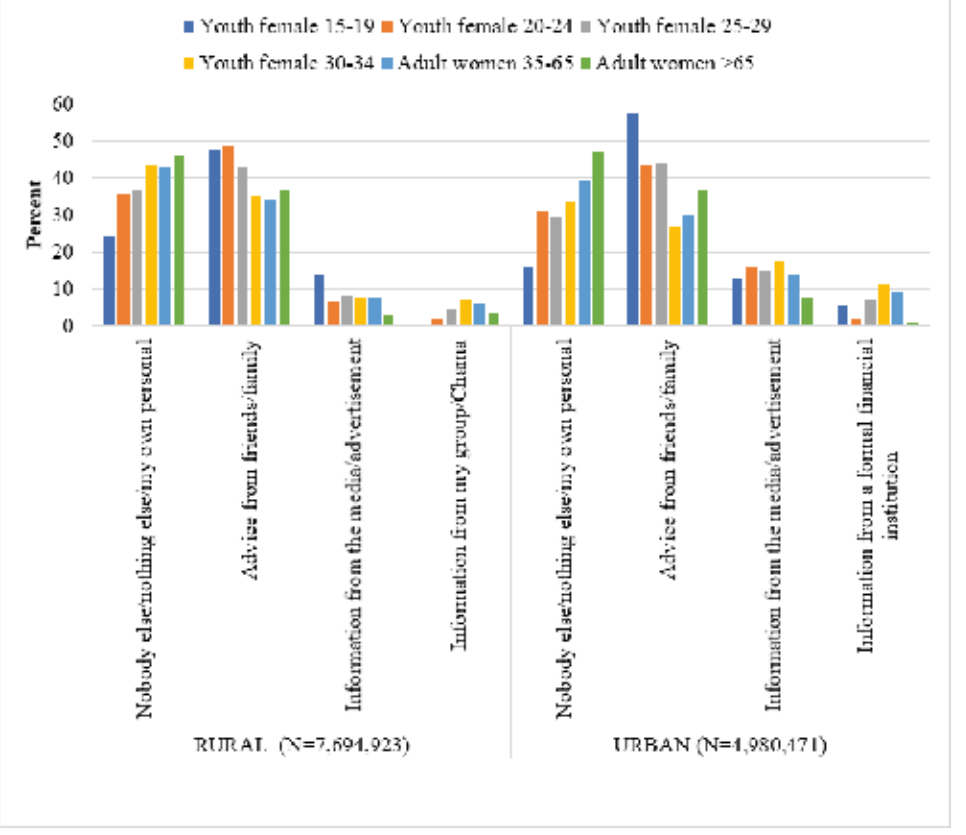
Source of data: FinAccess (2019)

3.4.4 Access to agri-finance information, level of awareness of different agri-finance channels

Sources of financial information

The main source of financial information for women living in both urban and rural areas is their family and friends, at an average proportion of 40 per cent, followed by their own personal decision. This implies that communal channels of communication are critical for information to spread among the female folk. Even though the proportion of "*chama*" ranks low, it is still implied because the members of the "*chama*" are usually friends and family (Figure 31).

Figure 31: Proportions of different sources of financial information disaggregated (%)

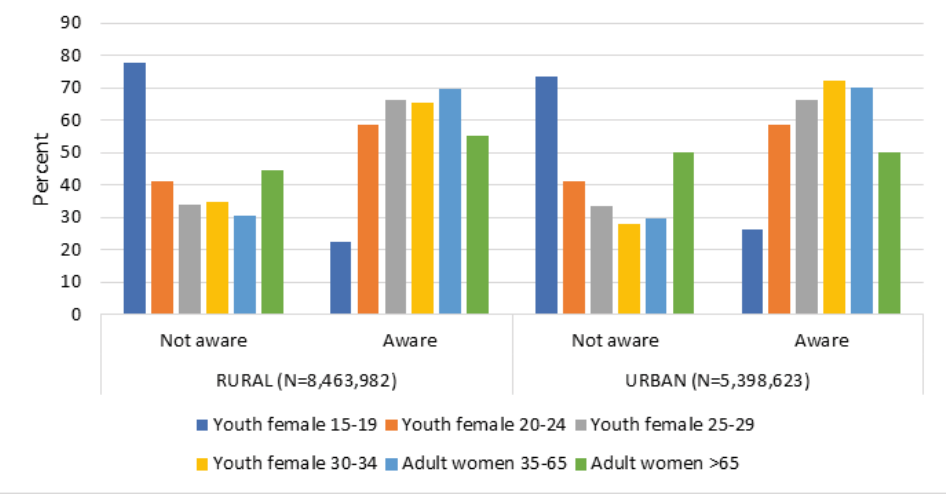


Source of data: FinAccess (2019)

Level of awareness of different agri-finance channels

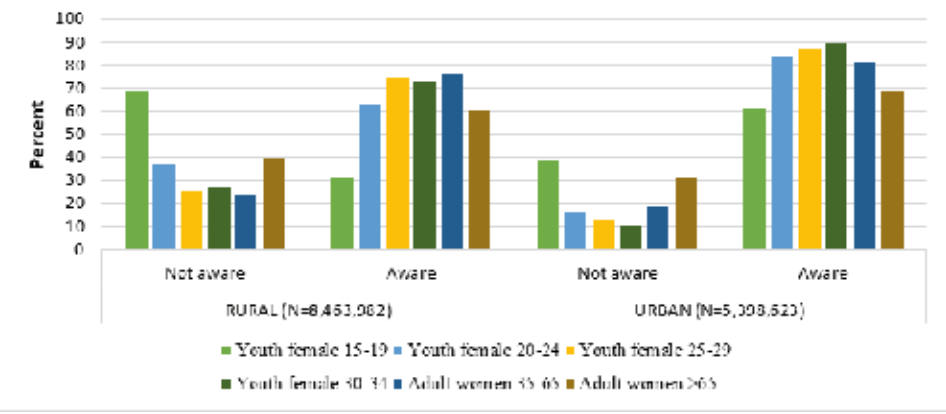
On awareness to credit sources, Figure 32 shows that a larger percentage of women have awareness of sources of loans in both rural and urban areas. The level of awareness for both women living in rural and urban areas is an estimated 70 per cent. Furthermore, the levels of awareness are generally higher in women aged 35-65 compared to women aged above 65. This could be explained by the fact that women have social networking opportunities and thus share information.

Figure 32: Proportions of the level of awareness of credit sources (%)



Source of data: FinAccess (2019)

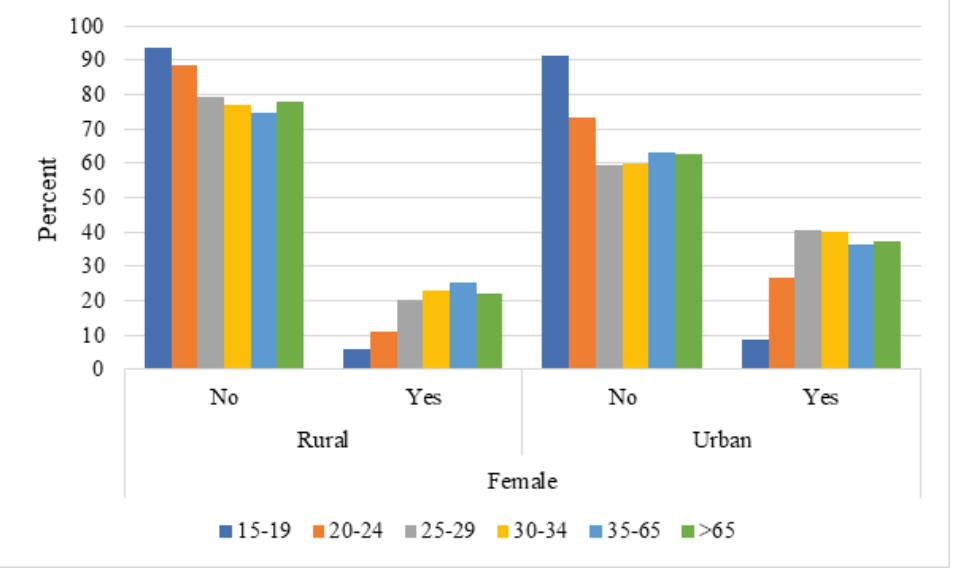
Figure 33: Proportions of the level of awareness of saving products (%)



Source of data: FinAccess (2019)

Figure 33 shows that a larger percentage of women have awareness of savings products in both rural and urban areas. Furthermore, the levels of awareness of savings products are higher in urban areas and lower in rural areas. The levels of awareness are generally higher in women aged 35-65 compared to women aged above 65. Women aged 35-65 in urban areas have the highest levels of awareness of saving products at 81 per cent, which is high in relation to their rural counterparts (77%). Equivalently, elderly women aged above 65 in urban areas have higher awareness of savings products (69%) compared to their peers in rural areas (61%). On the other hand, women were not aware about insurance (Figure 34); more than 70 per cent of those living in rural areas reported that they did not know, while in urban areas an estimated 60 per cent reported similiarly.

Figure 34: Proportions of the level of awareness of insurance (%)

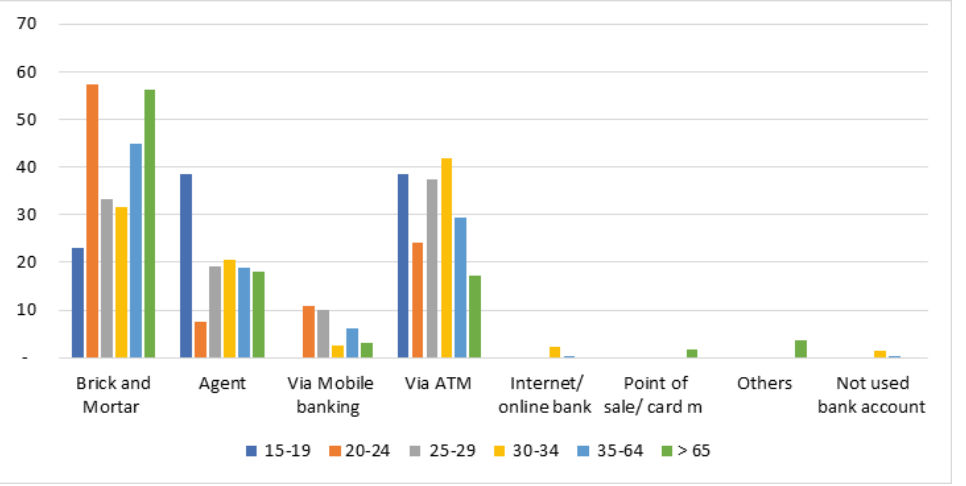


Source of data: FinAccess (2019)

3.4.5 Different agri-finance channels used

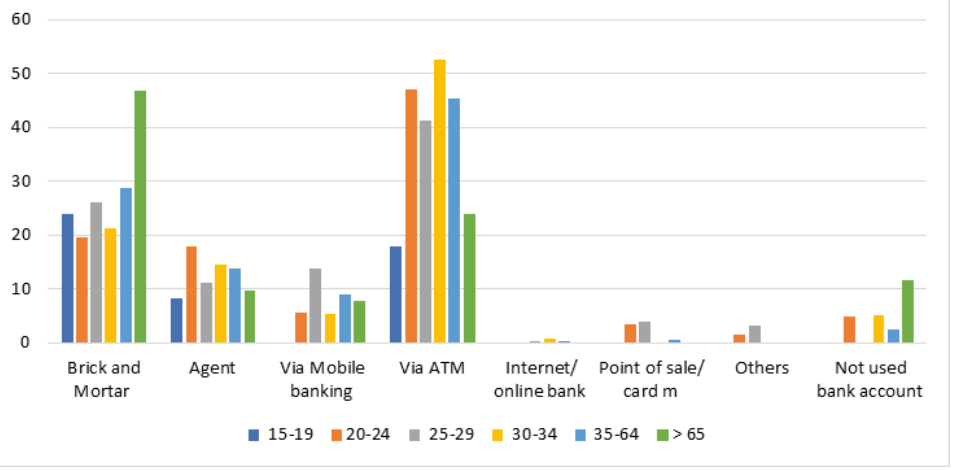
Most women living in rural areas prefer to visit the branch or rather the physical office of the institutions offering financial services and products (Figure 35) or use the agent or an ATM compared to the mobile or internet banking. Compared to women living in urban areas where they all use the ATM, physical office, agent and mobile banking, in descending order. This can be attributed to the availability of information and services (Figure 36).

Figure 35: Proportions of women living in the rural areas using different agri-finance channels (%)



Source of data: FinAccess (2019)

Figure 36: Proportions of women living in the urban areas using different agri-finance channels (%)



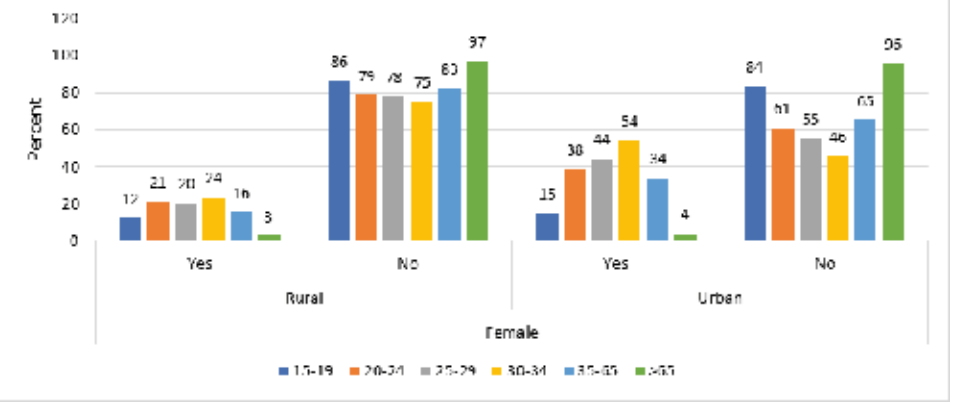
Source of data: FinAccess (2019)

3.4.6 Financial literacy by women

Knowledge about CRB by women

Women in urban areas in all age cohorts have more knowledge about CRB compared to those in rural areas (Figure 37). Those aged 30-34 (54%) in urban areas recorded the highest levels of knowledge about CRB compared to 24 per cent in a similar cohort in rural areas. Women aged >65 in both rural (3%) and urban (4%) recorded the lowest levels of awareness about CRB.

Figure 37: Proportion of women with knowledge about CRB (%)

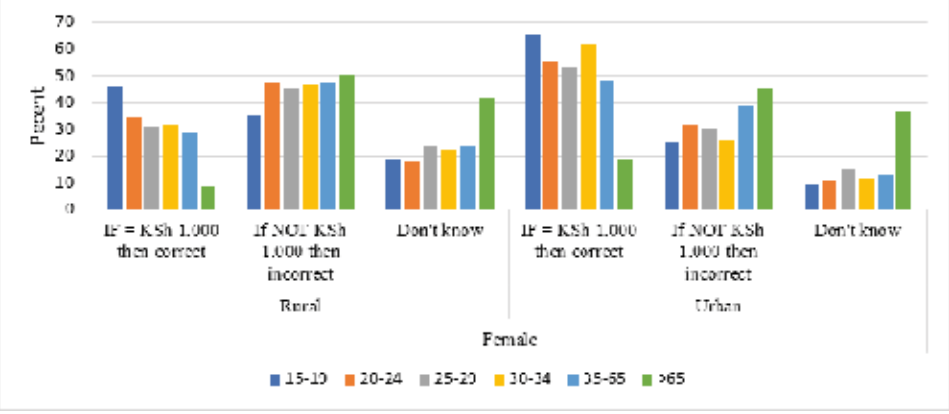


Source of data: FINAccess (2019)

Interest rate computation among women

Figure 38 shows that the levels of financial numeracy among women in urban areas are higher than those in rural areas. Females in age cohort 15-19 in urban (65%) and rural (46%) areas recorded the highest levels of numeracy compared to other cohorts. This could be attributed to them being in a school going period, with higher ability and skills to compute mathematical problems in finance. Women aged >65 in urban (19%) and rural (9%) areas recorded the lowest levels of financial numeracy.

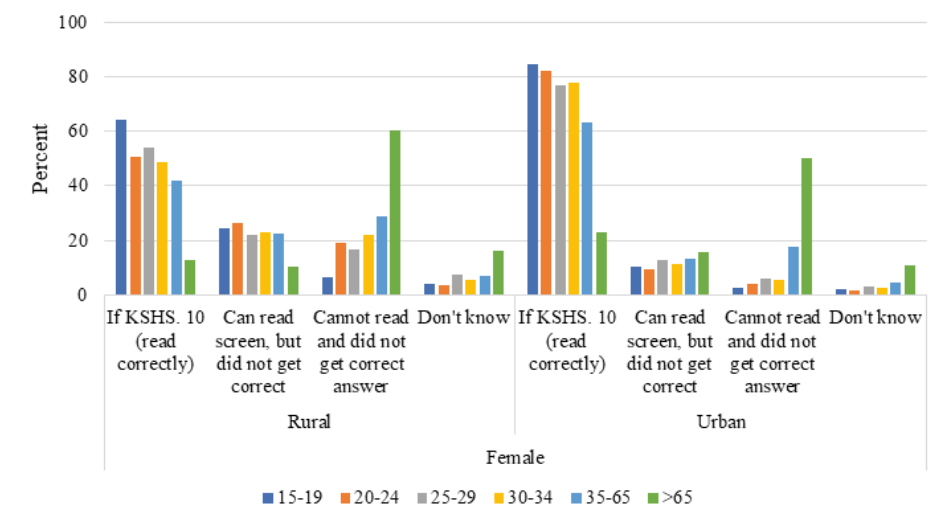
Figure 38: Proportion of women able to compute interest rate (%)



Cost of transactions

The cost of transaction includes knowledge on the terms and conditions including cost, insurance, conveyancing and processing costs. Participants were requested to read out loud a message on the screen as it appears in mobile money transaction and identify the transaction cost from the message. Over half (50%) of the respondents were able to read and interpret the costs of mobile money transactions, implying financial literacy levels among them (Figure 39).

Figure 39: Proportion of women able to read and understand the cost of transactions (%)



3.4.7 Number of women trained to engage in income generating activities

Percentage of women completed post-secondary education

A larger percentage of women have completed technical training after secondary school (18.38%), followed by those who had completed university (11.64%). Women with some technical training were 4.21 per cent, those with some university were 2.47 per cent whereas those with other were 1.44 per cent. Results indicate that for rural areas, a larger percentage of women had completed technical training after secondary school (3.95%), followed by those who had some technical training (1.94%) and then completed university (1.62%). The figure also shows that for the case of urban areas, a larger percentage of women had completed technical training (14.43%), followed by those who had completed university (10.02%). The percentages for some technical training, some university and other for women in urban areas were, respectively, 2.27%, 2.13% and 0.95% (Figure 40).

Figure 40: Proportion of women completed post-secondary education

Source of data: FinAccess (2019)

These findings are supported by the claim that women in urban areas have more access points at technical colleges than those in rural areas. Regarding completion at university, adult women aged 35-65 living in urban areas are the highest with 6.90 per cent *vis-à-vis* those in rural areas at 1.05 per cent. The next group in terms of percentage completion of university involves female youth aged 15-34 living in urban areas who have 1.85 per cent, which also compares quite highly with their rural counterparts who have 0.42 per cent. Urban residents have more opportunities and more exposure to access higher levels of education in comparison to rural residents.

3.4.8 Collateral and access to finance

The main source of agri-finance for most women as shown in Table 29 is informal, implying that in most cases the collateral items are agreed upon by the parties involved. However, there are women who borrow from formal prudential institutions and Table 29 shows the collateral items that they provide.

Women's access to collateral increases with age; for women living in rural areas, the collateral items used were mainly moveable assets, salary and guarantee by another person while for those living in urban areas, the items were land titles, salaries and guarantee by another person.

Table 29: Proportion of women using collateral for loans from formal prudential financial institutions

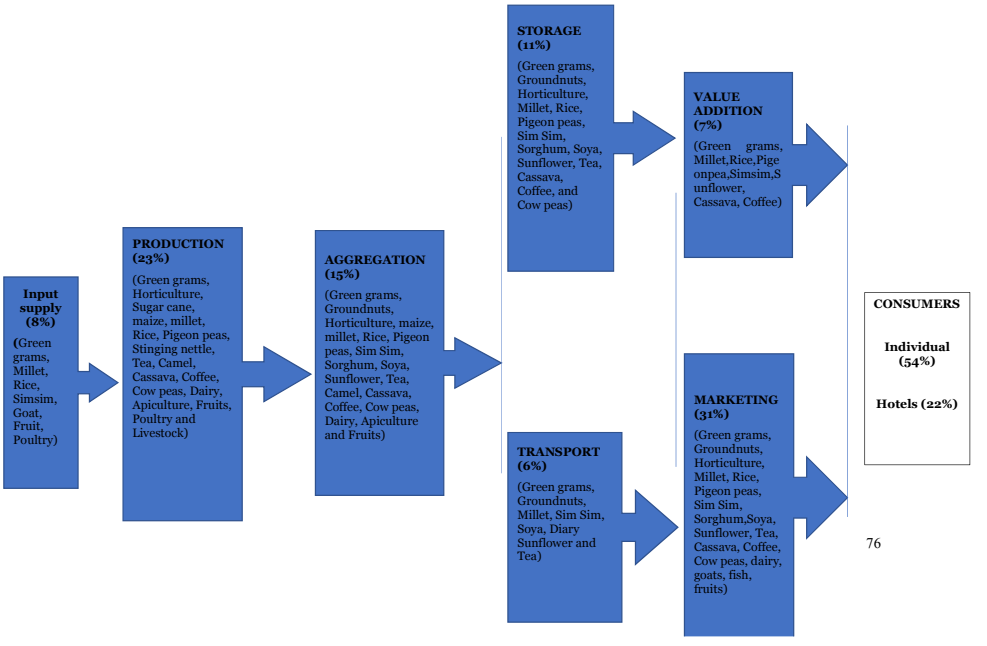
Collateral	Rural						Urban					
	15-19	20-24	25-29	30-34	35-65	>65	15-19	20-24	25-29	30-34	35-65	>65
Land/title deed/ house	0		0	11	2	0		8	10	7	8	0
Movable assets (e.g. livestock, car)	0		24	39	11	0		0	0	0	18	0
Household assets (e.g. TVs, fridges)	0		0	4	5	0		0	0	0	0	0
Salary	0		35	7	21	100		83	26	9	36	0
Guaranteed by another person/ guarantor	0		32	27	35	0		0	47	56	16	0
Group collateral	0		0	0	5	0		0	0	3	0	100
No collateral needed	100		9	12	21	0		9	16	25	23	0
Total	100		100	100	100	100		100	100	100	100	100

Data Source: FinAccess (2019)

3.4.9 Women participation in agriculture value chains

Based on the key informant interviews, women were asked to specify the commodity and the stage of the value chain that they are involved in, and to map their level of participation in the value chain. The map shows that women participate at all levels along the value chains for different commodities (Figure 41). The key informant sample was largely focused on women involved in retail trading, and we wanted to know which other part of the value chain they participate in, if any. The mapping showed that women did indeed participate at all stages; in input supply (8%), production (23%), and aggregation (15%) where they provide services for different commodities at different stages. The proportion of women engaged at the different levels indicated that 31 per cent of the women are involved in marketing, with 55 per cent of their consumers being individuals. Only 6 per cent of the women were involved in transport, 11 per cent in storage and 7 per cent in value addition stages of the value chain. This implies that there are opportunities to support women to participate in all stages of the value chain for different agricultural commodities in support of agricultural trade. However, further research is required to quantify and qualify the level of participation

Figure 41: Value chain participation by commodities



Main market for agricultural products

Women in rural and urban areas primarily sell their produce at the nearest market centres (29% and 28%, respectively). In rural areas, they also sell to brokers (22%) and to local traders/wholesalers (19%). However, in urban areas, the second most common market for produce is local traders/wholesalers at 24 per cent, followed by brokers at 15 per cent (Figure 42 and 43).

Figure 42: Main market for agricultural produce - rural

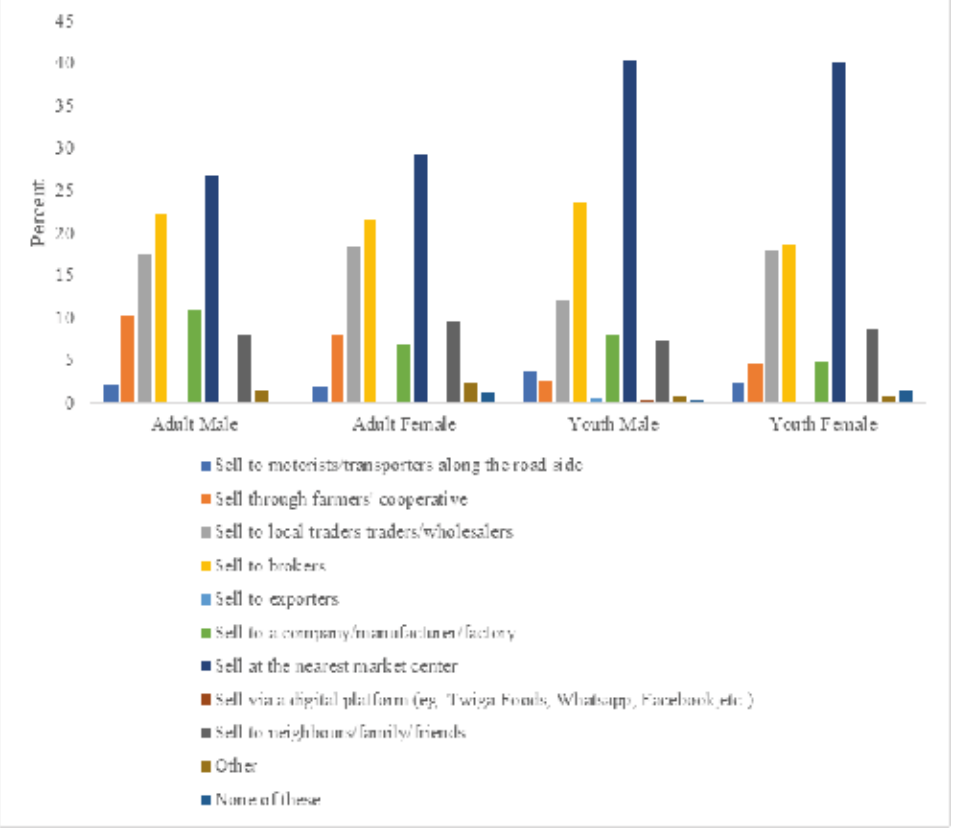
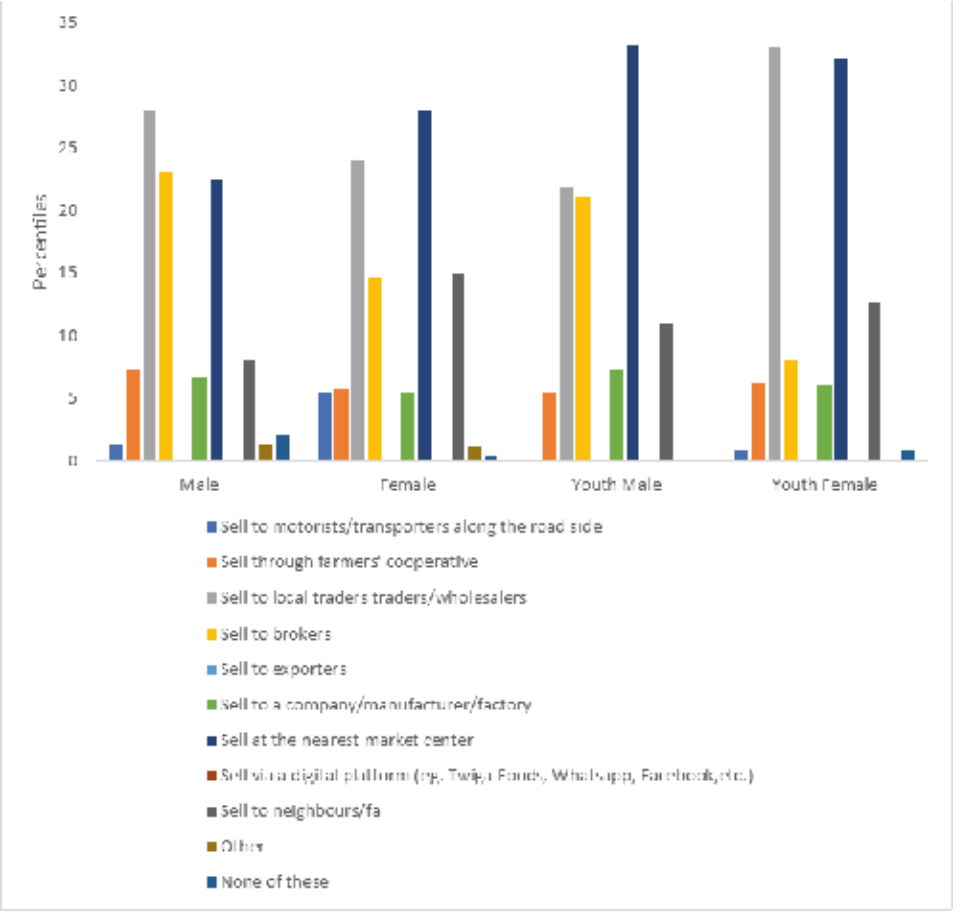


Figure 43: Main market for agricultural produce - urban



Source of data: FinAccess (2019)

3.4.10 Women Empowerment in Agriculture Index

The Women Empowerment in Agriculture Index (WEAI) is a composite measurement tool that aims to make women's empowerment a tangible and measurable concept (Brooke, 2016). WEAI was developed in 2012 by the International Food and Policy Research Institute (IFPRI) in liaison with USAID (SNV, 2017). The tool is versatile, such that it can be adapted to measure various aspects such as the abbreviated WEAI (A-WEAI), which is a lighter alternative of the original WEAI, and the pro-WEIA, which is meant for specific projects (Brooke, 2016).

The components and methodology of WEAI

WEAI is calculated as a weighted index of two key variables: Five dimensions of empowerment (5DE) and gender parity index (GPI) (Feed the Future, 2012; Feed the Future, 2014). 5DE and GPI have values ranging from zero (no empowerment, or no gender parity, respectively) to one (greatest empowerment, or greatest gender parity). Whereas 5DE is multidimensional, GPI is unidimensional and each of them have indicators that are used to compute them (IFPRI, 2012; Alkire, et al., 2013; Feed the Future, 2014; Feed the Future, 2016;). If women are to be empowered, there must be progress in both sub-indices. The threshold for woman empowerment is 80 per cent total adequacy in some combination of the weighted indicators. The 5DE measures women's empowerment within their households and communities. The GPI measures the gender parity gap that needs to be closed for women to reach the same level of empowerment as men; hence GPI shows the relative empowerment gap between the woman's 5DE score compared with that of the man (IFPRI, 2012; Alkire, et al., 2013; Feed the Future, 2016).

The 5DE includes ten indicators which are categorized into five domains that are equally weighted as follows: agricultural production, resources, income, leadership and time. Production domain is defined as sole or joint decision making over food and cash-crop farming, livestock, fisheries and autonomy in agricultural production. The domain on resources is defined as ownership, access to, and decision-making power over productive resources that include agricultural equipment, livestock, consumer durables, land and credit. The income domain involves sole or joint control over income and expenditures. Leadership deals with membership in economic or social groups and speaking comfortably in public. The last domain on time use dwells on allocation of time to productive and domestic tasks and satisfaction with the available time for leisure. For instance, with reference to time-use, a person is considered empowered if he or she spends less than 10.5 hours a day on a combination of productive and reproductive tasks (SNV, 2017)

Table 30: The five Domains of empowerment (5DE) in the WEAI

Domain	Indicators	Weight
Production	Input in productive decisions	1/10
	Autonomy in production	1/10
Resources	Ownership of assets	1/15
	Purchase, sale, or transfer of assets	1/15
	Access to and decisions on credit	1/15

Income	Control over use of income	1/5
Leadership	Group member	1/10
	Speaking in public	1/10
Time use	Workload	1/10
	Leisure	1/10

Source: IFPRI (2012); Alkire, et al. (2013); Feed the Future (2016)

The 5DE sub-index is constructed using the Alkire Foster Method (Alkire, 2012; Brooke, 2016). The Alkire Foster Method shows the number of domains in which women are empowered. 5DE first obtains three percentages: the percentage of women who are empowered (He), the percentage of women who are not empowered (Hn) and the percentage of dimensions in which disempowered women have adequate achievements (Aa). The 5DE is then computed as follows: overall 5DE = [He + (Hn*Aa)]. The GPI is calculated by first obtaining the percentage of women without gender parity (Hwgp) and the percentage shortfall a female experience relative to the male in her household (Igpi), and the overall GPI = [1 – (Hwgp*Igpi)]. The final WEAI score is a weighted average of the 5DE (accounts for 90%) and GPI (accounts for 10%), and therefore WEAI = 0.9(5DE) + 0.1(GPI). (IFPRI, 2012; Hogue and Malapit, 2012; Alkire, et al. 2013; Feed the Future, 2016; Brooke, 2016).

Studies on WEAI in Kenya are limited, particularly on issues on agriculture. Studies found from Kenya include: Westat (2013); Seymour et al., 2016; SNV Netherlands Development Organization, 2017; Dirro et al., 2018; and SNV Netherlands Development Organization, 2018). The study by Westat (2013) used a sample of 1,760 and collected data together with the Kenya National Bureau of Statistics between the period January to February 2013. The study found the overall WEAI score for Kenya as 0.72. The 5DE index value was 0.71 and the GPI score was 0.81. Based on these indices of WEAI, 31.7 per cent of women who were surveyed have achieved adequate empowerment while 36.2 per cent of them have achieved gender parity. Women are generally less empowered, with IFPRI (2014) finding that men are three times more empowered compared to women in Kenya. Despite this, Kenya enjoys a higher women empowerment score of 0.883 (n=226) compared to neighbouring Ethiopia which had a women empowerment score of 0.847 (n=899) and Tanzania scored 0.742 (n=354) (Seymour et al., 2016).

According to SNV (2017), on time-use domain, a person is considered empowered if the person spends less than 10.5 hours a day on productive and reproductive activities. On the time use domain, only 41.5 per cent of women in Kenya are empowered, compared to 51 per cent of men. Women spend about 11.2 hours per

day on productive and reproductive activities compared to men who spend 10.5 hours (SNV, 2017). The study further shows that the overall empowerment score for Kenya is 72 per cent for women and 73 per cent for men. The study found for Kenya a 5DE score of 0.910 for women and the GPI score of 0.949, hence yielding a WEAI score of 0.914.

The study by Dirro et al. (2018) on the relationship between maize productivity and women's empowerment in agriculture in western Kenya used the abbreviated WEAI (A-WEAI) to measure women empowerment. The study found that all indicators of women empowerment except time-use increase maize productivity. The inadequacies that women face in agriculture include: control over use of income (1.4%), asset ownership (8.4%), access to and decisions on credit (19.8%), input in productive decisions (24%), group membership (70.2%) and workload (71.8%). Overall, the study found 65.9 per cent of the women as disempowered, which compared favourably with 68.4 per cent of women disempowered as found by Malapit et al. (2014).

Another follow-up study on women empowerment was conducted by SNV in 2018 using the A-WEAI method, but this time for six (6) counties with a sample of 418 people that consisted 278 women and 140 men. Other than quantitative survey, the study also adopted Focus Group Discussions (FDGs) and interviews on 40 men and women in Kenya in July 2018. The findings of this study were 0.921 for 5DE score, 0.970 for GPI score and 0.925 for a-WEAI. Thus, between 2016 and 2018, all three indices improved for Kenya, and that 74.5 per cent of women were considered empowered based on a-WEAI methodology (SNV Netherlands Development Organization, 2019).

In sum, studies have found mixed results on women empowerment in agriculture index, perhaps due to use of different methods of analysis, varied sample sizes, varied regional focus and the way the studies were conducted. This reinforced the need for another study that will utilize a much larger sample size and attempt to combine as many indicators as possible to compute a WEAI score for Kenya.

Table 31: Summary of WEAI Scores for Kenya

Author and year	Details of study	Variables	Women	Men
Westat (2013)	Conducted in northern Kenya and data collected between January and February 2013. Sample of 1,760 households	Overall WEAI score	0.72	-
		5DE index	0.71	-
		GPI score	0.81	-

Malapit et al. (2014)	Focused on northern Kenya	Empowered headcount	31.6%	-
Seymour et al. (2016)	Computed WEAI scores for Ethiopia, Kenya and Tanzania using Alkire-Foster Method	WEAI score for Kenya (n=226)	0.883	-
SNV Netherlands Development Organization (2017)	Conducted in July 2016 in 11 counties (Baringo, Laikipia, Isiolo, Kajiado, Kitui, Machakos, Makueni, Marsabit, Narok, Samburu and Taita Taveta) Used Alkire Foster Methodology to compute WEAI	Sample size	n=393	n=199
		Empowered headcount	71.8%	72.9%
		5DE score	0.910	0.921
		GPI	0.949 (n=175)	-
		WEAI	0.914	-
		Biggest contributor to disempowerment	Time-use (58%)	Time-use (63%)
Dirro et al. (2018)	Used 707 maize farmers from western Kenya to find relationship between women empowerment and maize productivity. Used A-WEAI score for each household.	Empowered headcount	34.1%	-
SNV Netherlands Development Organization (2019)	Study was conducted in 2018 as a follow up to the study done in 2016. Study utilized six counties and n=418	5DE	0.921	-
		GPI	0.970	-
		a-WEAI	0.925	

Source: Author review

Uses and limitations of WEAI

The WEAI can be used to capture women's rights, agricultural development, gender equality, inclusion into agriculture and help in policy making process. For example, Bangladesh used the WEAI baseline report to take responsibility for women's empowerment in agriculture. Despite these benefits, the index is wrought with three key limitations: score may not be representative as it only surveys the head female in households; it is focused only on empowerment in agriculture, and questions are subjective hence answers may fail to be accurate (Brooke, 2016).

3.5 Summary: Women and Access to Agri-finance

Generally, 16 per cent of women have access to finance from institutions offering both formal and non-formal prudential services and products.

66 per cent of the women living in rural areas are excluded, compared to 51 per cent of those living in urban areas. The preferred financial institutions in rural areas are informal, such as *chamas* (19%), formal non-prudential such as mobile money (8%) and formal prudential such as banks (7%). For women living in urban areas, informal financial institutions were still the most preferred sources of finances among women (28%).

The number of financial institutions giving loans to women: Formal Prudential services and products were: (i) 114 SACCOs of which 38 were giving loans, and of these 10 of them gave agri-business loans; (ii) 28 commercial banks sampled, 8 gave loans to the women with 4 providing agri-business loans; (iii) micro-finance banks were 5 where only one gave loans to women. Formal registered services and products had 27 micro-finance institutions where 14 gave loans to women, and of these 3 gave agri-business loans. There were 6 institutions of which 5 provided loans, and 2 of them provided agri-business loans. The other category is the informal/excluded where the number 6 represents the different options available to women, namely: money lender/shylock, *chama*/group, family, friend or neighbour loan, shopkeepers/supply chain credit, and employers.

Most women living in rural and urban areas take one loan (588,720) with the age cohort 35-65 being the most active. This age cohort constitutes a third of women population taking loans. The number of women with access to loans for agri-business is higher for women in rural areas (1,150,016) compared to those in urban areas (147,804). **The age short 35-65 borrows on average the largest amounts (Ksh 9,109- rural and Ksh 9,540** - urban) despite the area of residence, with the rural population recording a higher maximum (Ksh 439,000).

Women living in rural areas take more agri-business loans compared to those in urban areas. Most of the loans are used to meet day to day farm activities, buy farm inputs and assets, expand their farms, and diversify agri-business activities. Among the reasons why women were denied credit is that their savings were too low. This was the case for 20-24 at 49 per cent and women aged above 65 years (35%). Another reason for being denied credit was bad/no credit history especially for females aged 25-29 (30%) and those aged 30-34 (34%). Bad debt to pay off was also another reason for women aged above 65 and those aged 30-34. Generally, a larger percentage of younger females prioritize fast/easy access to finance compared to the more aged females and women when they are looking for finance.

The main source of financial information for women living in both urban and rural areas is their family and friends, at an average proportion of 40 per cent. This is followed by their own personal decision, implying that

communal channels of communication are critical for the information to spread among the female folk. Although the proportion of "*chama*" ranks low, it is still implied because the members of the "*chama*" are usually friends and family.

Financial literacy: Women in urban areas in all age cohorts have more knowledge about Credit Reference Bureau (CRB) compared to those in rural areas. Those aged 30-34 (54%) in urban areas record the highest levels of knowledge about CRB compared to 24% in a similar cohort in rural areas. Women aged >65 in both rural (3%) and urban (4%) record the lowest levels of awareness about CRB. The levels of financial numeracy among women in urban areas are higher than those in rural areas. Females in age cohort 15-19 in urban (65%) and rural (46%) areas record the highest levels of numeracy compared to other cohorts. Over half (50%) of the respondents were able to read and interpret the costs of mobile money transactions, implying financial literacy levels among them.

Women participation in agricultural value chains: A mapping conducted with women involved in retail trade showed that women participated at all stages: in input supply (8%); production (23%); aggregation (15%), where they provide services for different commodities at different stages. The proportion of women engaged at the different levels indicated that 31 per cent of the women are involved in marketing, with 55 per cent of their consumers being individuals. Only 6 per cent of the women were involved in transport, 11 per cent in storage and 7 per cent in value addition stages of the value chain. This implies that there are opportunities to support women to participate in all stages of the value chain for different agricultural commodities in support of agricultural trade. However, further research is required to quantify and qualify the level of participation.

Women Empowerment in Agriculture Index (WEAI): Based on a study carried out in July 2018, the abbreviated Women Empowerment in Agriculture Index (a-WEAI) was 0.921 for 5DE score, 0.970 for GPI score and 0.925 for a-WEAI, implying that between 2016 and 2018, all three indices improved for Kenya, and that 74.5 per cent of women were considered empowered based on a-WEAI methodology.

3.6 Determinants of Access to Agri-Finance

This section provides an overview of the factors that determine access to agri-finance. The results are in reference to the classification of access to finance and are presented in reference to the excluded category.

Formal prudential financial institutions

The results show that individuals who have accounts with a financial institution have a 39 per cent chance of accessing agri-finance. Education at tertiary level gives one a 7 per cent higher probability of accessing agri-finance. Another determinant is wealth quintile; higher wealth quintile increases the probability by 4.3 per cent. Variables such as gender of individual, ownership of mobile phone, having savings, land ownership, marital status, cost to nearest financial provider, age and household size were observed not to have a significant effect on probability to access agri-finance (Table 32).

Table 32: Multinomial logit model for determinants of access to agri-finance from formal prudential financial institutions

Variables	dy/dx	Robust Std. Err	z	p>z	[95% Confidence interval	
Sex (1=Male, 0=Female)	-0.001	0.026	-0.040	0.970	-0.052	0.050
Mobile_own (1=own, 0=Don't own)	0.003	0.053	0.060	0.952	-0.100	0.107
Saving (1=Yes, 0=No)	-0.085	0.055	-1.540	0.123	-0.193	0.023
Own formal financial account (1=Yes, 0=No)	0.393	0.084	4.690	0.000	0.228	0.557
Own land (1=Yes, 0=No)	0.024	0.028	0.860	0.389	-0.031	0.080
Education level (ordinal) (1=None, 2=Primary, 3=Secondary, 4=Tertiary)	0.071	0.019	3.730	0.000	0.034	0.108
Marital status (1=married living with spouse, 0=Not married/no spouse)	0.009	0.028	0.320	0.749	-0.047	0.065
Wealth quantile (likert) (1=Lowest, 2=Second lowest, 3=Middle, 4=Second highest, 5=Highest)	0.043	0.011	3.940	0.000	0.022	0.064
avcost_to_near_fin_provider	-0.001	0.018	-0.050	0.959	-0.037	0.035
Age (years)	0.005	0.004	1.180	0.237	-0.003	0.014
age_squared	0.000	0.000	-0.470	0.636	0.000	0.000
Household size (Number)	-0.006	0.006	-1.010	0.312	-0.019	0.006
Monthly income (Ksh)	0.000	0.000	3.790	0.000	0.000	0.000

Source: Author computations, based on FinAccess (2019) data

Formal non-prudential financial institutions

The results are discussed in reference to the excluded category and they show that owning an account reduces the likelihood of accessing agri-finance by 15 per cent. This finding is supported by the view that ownership of a formal financial

account is not a necessary prerequisite for one to get finance from non-prudential financial institutions such as mobile financial services. Concerning education level, individuals who have a higher level of education (tertiary level) have a 6 per cent lower probability of accessing agri-finance from formal non-prudential financial institutions compared to an individual at a lower level of education. Individuals in higher wealth quintile have a 4.7 per cent lower chance of accessing agri-finance in relation to those who belong to lower wealth quintiles. This finding points to the nature of formal non-prudential financial institutions that are subject to oversight by government departments/ministries with focused legislations or statutory agencies.

Table 33: Multinomial logit model for determinants of access to agri-finance from formal non-prudential financial institutions

Formal non-prudential						
Variables	**dy/dx**	**Robust Std. Err**	**z**	**p>z**	**[95% Confidence interval**	
Sex (1=Male, 0=Female)	-0.014	0.027	-0.500	0.615	-0.066	0.039
Mobile_own (1=own, 0=Don't own)	0.035	0.053	0.660	0.512	-0.069	0.139
Saving (1=Yes, 0=No)	0.073	0.056	1.300	0.193	-0.037	0.182
Own formal financial account (1=Yes, 0=No)	-0.150	0.089	-1.670	0.094	-0.325	0.026
Own land (1=Yes, 0=No)	-0.018	0.030	-0.620	0.538	-0.076	0.040
Education level (ordinal) (1=None, 2=Primary, 3=Secondary, 4=Tertiary)	-0.060	0.020	-3.070	0.002	-0.099	-0.022
Marital status (1=married living with spouse, 0=Not married/no spouse)	-0.012	0.030	-0.390	0.697	-0.070	0.046
Wealth quantile (likert) (1=Lowest, 2=Second lowest, 3=Middle, 4=Second highest, 5=Highest)	-0.047	0.011	-4.130	0.000	-0.070	-0.025
avcost_to_near_fin_provider	0.026	0.019	1.330	0.183	-0.012	0.064
Age (years)	-0.009	0.005	-2.000	0.046	-0.018	0.000
age_squared	0.000	0.000	1.430	0.153	0.000	0.000
Household size (Number)	0.004	0.007	0.620	0.535	-0.009	0.017
Monthly income (Ksh)	0.000	0.000	-2.160	0.031	0.000	0.000

Source: Author computations, based on FinAccess 2019 Data

3.7 "Big Four" Agenda: Food and Nutrition Security

Kenya has put in place the 'Big Four' agenda to guide its development from 2018 to 2022. The agenda is focused on basic needs that are critical in raising the standard of living of Kenyans and promoting a strong inclusive economic growth as the country moves towards becoming an upper middle-income country by 2030. The elements of the "Big Four" agenda are universal and affordable healthcare, affordable and decent housing, manufacturing to create more employment and food and nutritional security. These goals are grounded in the 2010 Constitution of Kenya, which recognizes adequate food and nutrition, healthcare and housing as human rights in Articles 43 (for all citizens) and 53 (for children).

From Table 34 on the big four agenda focus areas and targets, potential to support women and youth lies in promoting and enhancing smallholder productivity under the food security and nutrition pillar. Here, there are targets to establish 1000 Small and Micro Enterprises using performance-based incentive model along the entire value chain. Secondly, is to improve access to credit/ input for farmers through Warehouse Receipt System and strengthening of commodity fund. Under the manufacturing pillar of the big four, potential for support to youth and women in agriculture lies in textile/apparel/cotton, leather, agro-processing and market access targets.

Table 34: "Big Four" agenda focus areas and targets

Focus Area	Detailed Initiatives	2017/18 Target	2022 Target
Food and Nutritional Security			
Enhance large scale production	Place additional 700,000 acres under irrigation through PP (including idle arable land) under maize, potato, rice, cotton, aquaculture aqua culture and feed production	500,000 acres - e.g. (2.76 million bags of maize will be produced in 52,000 acres)	1,200,00 acres
	Form an Agriculture and Irrigation Sector Working Group (AISWAG) to provide coordination for irrigated agriculture	March 2018	
	Use locally blended fertilizer on a 50/50 basis and implement liming, e.g maize.	1 million bags	
	Avail incentives for post-harvest technologies to reduce post-harvest losses from 20% to 15%, e.g waive duty on cereal drying equipment, hematic bags, grain cocoons/silos, aquaculture equipment and feed fishing	2 million (maize)	

Drive smallholder productivity	Establish 1,000 targeted production level SMEs using a performance-based incentive model in the entire value chain	200 SMEs by December	1000
	Improve access to credit/input for farmers through Warehouse Receipt System and strengthen commodity fund	500,000 farmers access credit	
	Establish commercialized feed systems for livestock, fish, poultry and piggery to revolutionize feed regime and traceability	10 PPPs negotiated and actioned	
	Establish East Africa's premier food hub, secure investors to construct a shipyard (in 2018 – site existing) and increase domestic fishing fleet by 68 vessels in the Coast	Food hub investors secured 10 fleets in place	
	Smallholder production and value addition as a % of agricultural production and exports	16%	50%
Reduce cost of food	Contract farmers for Strategic Food Reserve and other commercial off-takers	300,000 bags	
	Redesign subsidy model to maximize impact by focusing on specific farmer needs (flexible voucher and incentive-based model)	New model in place and piloted	
	Secure investments through PPP in post-harvest handling (storage, cold storage for fish, aggregation) and market distribution infrastructure to reduce losses (by December 2018)	2 seed potato stores (Nyandarua, Molo), 1 potato ware store, (Nyandarua) 3 fish storage (Migori)	
	Rehabilitate and operationalize fish landing sites in Lake Victoria (Migori, Homa Bay and Busia)	3 landing sites operational	
	Eliminate multiple levies across counties in the agriculture value chain (enforce laws on roads)	Roads levy enforced	
	Reduce cost of food as a percentage of income by 22%	47%	25%
	Reduce value chain inefficiencies by at least 50% by 2022		50%
Manufacturing			
	Increase manufacturing contribution to GDP from 9.2% to 20% of GDP		
	Textile/ apparel/ Cotton	US$ 200 million exports	US$ 2 billion exports
		50,000 cotton jobs	500,000 cotton jobs
		10,000 new apparel jobs	100,000 new apparel jobs

	Leather	US$ 70 million exports	US$ 500 million exports
		5,000 new jobs	50,000 new jobs
			20 million shoes made
	Agro-processing	16% value added (US$ 200 million)	50% value added
		200 SMEs	1,000 SMEs
		20,000 jobs	200,000 jobs
	Fish processing		US$ 20 million fish feed
		Attract 1 fish feed mill investor and attract 2 processors to invest in marine and fresh water fish processing	8 mills investment
			20,000 jobs
	Market access	Grow exports by 10%	Grow exports by 20% annually
		Strengthen trade facilitation programme	
		Revamp Export Promotion Council and Anti-Counterfeit Agency	

Towards achievement of these targets, the government has established various affirmative funds targeted at financing women, youth and people with disabilities in setting up small and medium scale enterprises. These funds include Uwezo Fund, Women Enterprise Fund, Youth Enterprise Development Fund and SME Fund. However, through the Presidential Taskforce on Parastatal Reforms, consolidation of these funds and initiatives was recommended to form Biashara Kenya as the principal SME agency. This followed recognition of the fragmented approach adopted in supporting, financing and developing small and medium sized enterprises, particularly those owned and managed by youth, women and minorities.

Table 35 shows the status of the various affirmative funds/programmes targeted towards youth and women in Kenya as at 2017, which is the baseline for the "Big Four" agenda. Disaggregation into various sectors is not possible as, according to the Ministry of Public Service Youth and Gender Affairs on the implementation of the "Big Four" agenda, profiling of youth in agribusiness is yet to be done.

3.7.1 Youth/women affirmative funds/programmes

Table 35: Youth/women affirmative funds/programmes

Affirmative Fund	Main engagement activities	Number of youths/ women	Total amount disbursed (Ksh millions)
Youth Enterprise and Development Fund	Training in entrepreneurship	508,368 youth	
	Facilitated to market products both locally and abroad	1,0767 youth	
	Jobs abroad through strategic partnerships	26,015 youth	
	Supported to access affordable trading spaces across the country	1,653 youth	
Women Enterprise Fund	Engaged in horticulture, bee keeping, maize/ potato/vegetable farming, tea and coffee production	30,592 women	278.74
Uwezo Fund	Engaged in making energy savings jikos, bead making, basket weaving, knitting, juice and yoghurt making, detergent making, beauty products and mining	1,607 women, PWDs and youth groups	150.8
	Engaged in bee keeping, livestock keeping, poultry keeping, rabbit rearing, fish farming and planting of trees	2,677 women, PWDs and youth groups	251.5

Sources: Youth Enterprise Development Fund: Board Performance Report (June 2016 - May 2019); Ministry of Public Service Youth and Gender Affairs: Implementation of the "Big Four" agenda report

3.7.2 Status of the youth empowerment programmes

Table 36: Status of the youth empowerment programmes

Programme	Key Outputs	Key Performance Indicators	Target			Achievement		
			2014/15	2015/16	2016/17	2014/15	2015/16	2016/17
National Youth Service	Youth empowered and skills developed	No. of youth recruits trained and regimented	21,870	21,870	21,870	21,870	10,935	15,000
		No. of community youth gainfully engaged in YEP	-	75,000	45,000	3,077	76,934	73,234
		No. of youth who have undergone Vocational Training	4,000	6,000	10,000	4,177	6,303	12,673
		No. of community youth SACCOs registered	66	234	430	66	134	380
		Savings generated by community Youth SACCOs (Ksh)	-	-	761.4M	409M	841M	629M
Youth Development Services	Youth mentored and Capacity built	No. of youth mentored on leadership and National Values	-	4,700	5,500	-	5,000	5,600
		No. of youths sensitized on AGPO	-	29,000	31,000	-	30,000	35,600
		No. of youth engaged in internship and apprenticeship	4,700	4,700	3,100	7,919	5,170	151
Youth Employment Scheme	Youth entrepreneurial and financial support provided	Amount disbursed to youth in Ksh million	600	830	914.5	612.33	463.2	352.7
		No. of youth trained on entrepreneurship skills	44,000	45,000	54,700	44,082	44,368	67,000
		No. of youth facilitated to market their products	500	750	1,200	679	947	2,293
Youth Coordination and Representation	Youth empowerment services provided	No. of youth sensitized on entrepreneurship, and leadership skills	1,000	3,000	5,000	3,100	4,050	5,200

Source: Public administration and international relations sector report: Medium Term Expenditure Framework (MTEF) period 2018/19– 2020/21

Table 37: Budget allocation in youth related programmes

Youth Empowerment programme	Approved Budget (Ksh millions)			Actual Expenditure (Ksh millions)		
	2014/15	2015/16	2016/17	2014/15	2015/16	2016/17
National Youth Service	19,089.55	17,962.68	20,035.12	11,565.73	14,797.30	15,466.19
Youth Development Services	1,921.50	702.78	986.18	1,755.60	656.00	911.51
Youth Employment Scheme	225.00	530.89	596.82	255.00	530.89	596.82
Youth Coordination and Representation	34.20	34.20	34.20	32.70	34.20	34.20
Total	21,270.25	19,230.55	21,652.32	13,609.03	16,018.39	17,008.72

Source: Public Administration and International Relations Sector Report: Medium Term Expenditure Framework (MTEF) period 2018/19– 2020/21

3.7.3 Status of the Uwezo Fund

Table 38: Status of the Uwezo Fund

Key output	Key Performance Indicator	Target 2016/17	Actual achievements 2016/17	Target (baseline) 2017/18	Target 2018/19	Target 2019/20	Target 2020/21
Increased access of Affirmative Action Fund to Youth	Amount disbursed to Youth, Women and PWDs Groups through Uwezo Fund (Ksh millions)	500	439	1,000	1,000	1,500	3,000
	No. of groups funded	10,500	4,956	10,000	12,000	16,000	20,000
	No. of groups trained	10,500	4,956	10,000	12,000	16,000	20,000

Source: Social Protection, Culture and Recreation Sector Report 2018/19–2020/21

3.7.4 Status of the Women Enterprise Fund

Table 39: Status of the Women Enterprise Fund

Key output	Key Performance Indicator	Target 2016/17	Actual achievements 2016/17	Target (baseline) 2017/18	Target 2018/19	Target 2019/20	Target 2020/21
Increased access of Affirmative Action Fund to Women	Amount disbursed to women groups through WEF (Ksh billions)	2.3	2.2	2.4	2.6	2.7	2.9
	No. of Groups funded	15,000	11,323	14,000	15,000	16,000	18,000
	No. of Women trained on entrepreneurship skills	150,000	136,890	140,786	135,450	142,223	149,334
	No. of women trained on SACCO formation	1,000	1,736	2,000	2,500	3,000	4,000

Source: Social Protection, Culture and Recreation Sector Report 2018/19 –2020/21

3.7.5 Status of the socio-economic empowerment programmes

Table 40: Status of the socio-economic empowerment programmes

Key output	**Key Performance Indicator**	**Target 2016/17**	**Actual achieve-ments 2016/17**	**Target (baseline) 2017/18**	**Target 2018/19**	**Target 2019/20**	**Target 2020/21**
Increased uptake of AGPO by women entrepreneurs	No. of women entrepreneurs trained on AGPO	500	600	-	800	1,000	1,200
	No. of AGPO Conference convened	-	-	1	2	3	4
	No. of women tenderers linked and accessing LPO financing from Financial Institutions	-	-	-	100	300	400
Increased access of Affirmative Action Funds to widows	Database of widows in counties	-	-	1	-	-	-
	No. of widows' capacity built on	-	-	500	1,200	1,500	1,800

	No of widows accessing funds from Affirmative Action Funds	-	-	500	1,200	1,500	1,800

Source: Social protection, culture and recreation sector report 2018/19 – 2020/21

3.7.6 Status of agricultural programmes targeted to women and youth

Table 41: Status of Agricultural programmes targeted to women and youth

Programme	Key Outputs	Key Performance Indicators	Target			Achievement		
			2014/15	2015/16	2016/17	2014/15	2015/16	2016/17
Agricultural policy, legal and regulatory frameworks	Youth and women groups supported with urban agriculture technology	No. of youth and women groups receiving urban agriculture technology grant	2,160	1,465	3,404	2,685	943	3,072
		Centres established and operationalized	0	2	2	0	2	2
	Agricultural equipment purchased and delivered to the youth groups	No. of equipment procured (Green houses, water pumps, and drip irrigation kits)	42	45	45	0	0	68

Source: Agriculture Rural and Urban Development (ARUD) Sector Report: Medium Term Expenditure Framework (MTEF) period 2018/19– 2020/21

3.8 Sustainable Development Goals

In 2015, the United Nations Member States adopted the 2030 Agenda for Sustainable Development with 17 goals to support the universal call to action to end poverty, protect the planet and ensure that all people enjoy peace and prosperity by 2030. For a developing country such as Kenya which heavily relies on the agricultural sector to spur its economic growth, key among these goals are goals 1, 2, 5, 8 and 12 that directly support the prosperity of women and youth in agriculture. This is important given agriculture contributes 34.2 per cent of GDP while women account for 75-89 per cent of the labour force in small-scale

agriculture and manages an estimated 40 per cent of small-scale farms (Action Aid 2015; KNBS 2019a). This is amid concerns of low participation of youth in agriculture, with statistics showing increasing youth unemployment in the country, which currently stands at 55 per cent (KNBS, 2019a). The selected SDGs are:

(a) ***Goal 1***: End poverty in all its forms everywhere;

(b) ***Goal 2***: End hunger, achieve food security and improved nutrition and promote sustainable agriculture;

(c) ***Goal 5***: Achieve gender equality and empower all women and girls;

(d) ***Goal 8***: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all;

(e) ***Goal 12***: Ensure sustainable consumption and production patterns.

Based on estimates of extreme poverty (living on less than US$ 1.90/day), about 57 per cent of Kenya's population are among the poorest 20 per cent of the global population (P20) (ID, 2019). On the other hand, the SDG Index and Dashboards Report 2018 indicates that globally, Kenya ranks position 119 with a global index score of 56.8% per cent and gender equality score of 69.3 while Tanzania and Uganda rank 123 and 125, respectively. There seems to be correlation between the gender equality score and the East African countries' Gross Domestic Products (GDPs). Kenya's GDP stands at US$ 2,925.6 while Uganda's GDP is US$ 1,687.1 (Adopted from (SDG Index and Dashboards Report 2018).

To ensure no one is left behind in eradicating poverty among other socio-economic problems, Kenya has domesticated and localized the United Nations Agenda 2030 on Sustainable Development Goals (SDGs) through its Third Medium Term Plan (MTP) (2018-2022) of the Vision 2030. Those at high risk of being left behind are those with limited financial resources, especially women in relation to land rights and unemployed youth with limited economic opportunities. Promotion of marginalized categories of people, especially the women and youth, remains an integral part of each of the 17 SDGs, in order to deliver the promises of shared and sustainable prosperity, peace and human progress. Protection of the marginalized groups is also enshrined as an obligation to the State in the Bill of Rights in Kenya's Constitution 2010.

In Kenya, the Ministry of Planning is responsible for the overall management and coordination of the implementation, monitoring and reporting of SDGs process. However, for successful implementation and to realize the targets by 2030, there is need for a multi-sectoral collaborative effort of the national government, county governments, private sector, civil society organizations and development

partners. So far, notable progress has been seen in moving towards achieving the SDGs targets, for example through national programmes and increased budgetary allocation. For example, in relation to SDG 2 on ending hunger, in 2018/19, the State Department of Crop Protection received 1 per cent of the national budget (25.3 billion), which is a 44 per cent increase from the previous year. In supporting SDG 1 on zero poverty, the Department of Social Protection budgetary allocation in 2018/19 was 68 per cent higher than what it received during its establishment in 2013 (DI, 2017). Other indicators of progress towards attainment of SDG targets include a decline in proportion of population living below the national poverty line from 46.6 per cent in 2014 to 36.1 per cent in 2016 (Goal 1); a rise in annual growth rate of real GDP per employed person from -0.55 per cent in 2014 to 0.40 per cent in 2016 (Goal 8) and a decline in food loss index from 79 per capita (Kcal) in 2014 to 73.3 per capita (Kcal) in 2016 (Goal 12) (KNBS, 2019b).

The status of each of the 5 goals in relation to gender, finance and agriculture targets by 2030 in Kenya is shown in the table below.

Table 42: Status of SDGs related to gender, finance and agriculture

		Indicator description	Baseline (2016) (Main source: KNBS, 2019b)	Target by 2030	Challenges
Goal 1: End Poverty in all its forms everywhere	1.2.1	Proportion of population living below the national poverty line, by sex and age	36.1% (Total) 40.1% (Rural) 29.4% (Urban)	- Reduce the levels of poverty by at least 30% *(SDGs Kenya Forum for Sustainable Development, 2016)*	(i) Inadequate investments that would translate to huge job creation (ii) Rural and urban dimensions of poverty (iii) Regional disparities within the country and regions (iv) Socio cultural practices that impede re-orientation of production systems
			Ending Drought Emergencies Strategy 2015 Launched	- End the worst of the sufferings caused by drought	
		By sex	36.2% (Female) 36.1% (Male)	- Reduce poverty among women by at least 50% *(SDGs Kenya Forum for Sustainable, 2016)*	
		By age group	41.5% (0-17 yrs) 29.1% (18-35 yrs) 32.5% (36-59 yrs) 36.2% (60-69 yrs) 39.1% (70+ yrs)		
	1.2.2	*Proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions*			
		(a) Children aged 0-17 years deprived in 3 or more dimensions	*(Children 0-17 years)* *45% (National)* *19% (Urban) 56% (Rural)*		
		(b) Multi-dimensional poverty	*38.9% (Total); 20.3% (Urban); 48.4% (Rural);*		
	1.3.1	Proportion of population covered by social protection floors/systems, by sex, distinguishing children, unemployed persons, older persons, persons with disabilities, pregnant women, new borns, work-injury victims and the poor and the vulnerable	352,000 (OVC) 46,917 (PWSDs)	- At least 30% of vulnerable populations including the older persons, PWSDs and children provided with social protection - At least 20% of the informal sector and rural labour have access to social security *(SDGs Kenya Forum for Sustainable Development, 2016)*	
	1.4.2	Proportion of total adult population with secure tenure rights to land, with legally recognized documentation and who perceive their rights to land as secure, by sex and by type of tenure	94% - Men only owned title deeds 5% - Women and Men owned title deeds 1% - Men only owned title deeds *(Kenya Land Alliance, 2018).*	By 2030, ensure that all men and women, in particular, the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural resources, appropriate new technology and financial services, including microfinance *(SDGs Kenya Forum for Sustainable, 2016)*	
	1.a.1	Proportion of domestically generated resources allocated by the government directly to poverty reduction programmes	2.5% (National Government-CDF) 20% (Counties)		
Goal 2: End hunger, achieve food security and improved nutrition and promote	2.3	2.3.1 Volume of production per labour unit by classes of farming/pastoral/forestry enterprise size			(i) The adverse effects of climate change leading to severe droughts, crop diseases and pests resulting in lower agricultural productivity (ii) Inappropriate agronomic methods and practices

		Indicator description	Baseline (2016) (Main source: KNBS, 2019b)	Target by 2030	Challenges
sustainable agriculture		2.3.2 Average income of small-scale food producers, by sex and indigenous status	Ksh 465/day *(Ministry of Agriculture, Livestock, Fisheries and Irrigation, 2019)*	625/day *(Ministry of Agriculture, Livestock, Fisheries and Irrigation, 2019)*	(iii) High population growth rates exerting pressure onto the limited productive arable land leading to land fragmentation into unviable farming units. This has led to declining trends in agricultural productivity and food insecurity (iv) Emergence and re-emergence of both crop and livestock diseases and pests exacerbated as well as cross-border livestock diseases (vi) Inadequate marketing strategies and systems for agricultural products (vii) Low uptake and adoption of modern technology, especially in the agricultural, livestock and fisheries sector.
Goal 5: Achieve gender equality and empower all women and girls	5.1.1	Whether or not legal frameworks are in place to promote, enforce and monitor equality and non-discrimination on the basis of sex	The Constitution of Kenya,2010, Article 23; National Gender and Equality Commission Act, No. 15 of 2011, Section 8; The Matrimonial Property Act, 2013; Public Procurement and Assets Disposal act 2015 in which Access to Government Procurement Opportunities (AGPO) is enshrined; Prevention against Domestic Violence Act, 2015.	- Fully enforce AGPO which reserves 30% to women, Youth & PWDs. - Undertake reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance and natural resources, in accordance with national laws *(SDGs Kenya Forum for Sustainable, 2016)*	(i) Harmful and prohibitive socio-cultural traditional practices and beliefs such as female genital mutilation/cutting (FGM/C) by some communities (ii) High level of tolerance of Gender Based Violence in some communities, persist as social - cultural norms on GBV thus significantly impairing prevention of GBV (iii) Continued existence of gender inequalities with regard to access and control of resources, economic opportunities, political as well as power
	5.a.1	Proportion of total agricultural population with ownership or secure rights over agricultural land, by sex; and (b) share of women among owners or rights-bearers of agricultural land, by type of tenure	94% - Men only owned title deeds 5% - Women and Men owned title deeds 1% - Men only owned title deeds *(Kenya Land Alliance, 2018).*	Undertake reforms to give women equal rights to economic resources, as well as access to ownership and control over land and other forms of property, financial services, inheritance and natural resources, in accordance with national laws	
	5.a.2	Proportion of countries where the legal framework (including customary law) guarantees women's equal rights to land ownership and/or control (SDG 1.4.2 is also related to this one)	The Constitution of Kenya, 2010, Article 45 (3); The Matrimonial Property Act, 2013; The Marriage Act, 2015	(SDG 1.4.2 is also related to this one) By 2030, ensure that all men and women, in particular the poor and the vulnerable, have equal rights to economic resources, as well as access to basic services, ownership and control over land and other forms of property, inheritance, natural	

		Indicator description	Baseline (2016) (Main source: KNBS, 2019b)	Target by 2030	Challenges
				resources, appropriate new technology and financial services, including microfinance *(SDGs Kenya Forum for Sustainable, 2016)*	
Goal 8: Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	8.2.1	Annual growth rate of real GDP per employed person	0.40%	The economy to grow at 10% annually supported by more creation of many decent jobs in Micro, Small and Medium Enterprises (MSMES). Currently (2019) GDP growth rate is 6.3% up from 5.9% in 2016	(i) Although the country envisions an annual growth rate of 10% annually, it has been affected by constrained global trade aggravated by subdued investments at the global level (ii) The effects of climate change and the continuing drought and unfavourable weather have affected agriculture and agro based industries as well as the manufacturing sector.
	8.3.1	Proportion of informal employment in non-agriculture employment, by sex	83.01%		
	8.10.1	Number of commercial bank branches and automated teller machines (ATMs) per 100,000 adults, and	Number of branches 1,541 Number of ATMs 11 *(CBK Annual Supervision Report, 2017)* Number of branches per 100,000 adults = 7 Number of branches per 100,000 adults = 11		
	8.10.2	Proportion of adults (15 years and older) with an account at a bank or other financial institution or with a mobile-money-service provider	73%		
Goal 12: Ensure sustainable consumption and production patterns	12.3.1	Food loss index	73.3 per capita (Kcal) *(food loss per capita derived from Food Balance Sheet (FBS))*	By 2030, halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains, including post-harvest losses	(i) Inadequate physical and social infrastructure in slums and informal settlements (ii) Rapid urbanization (iii) Rapid population growth (iv) Proliferation of informal settlements

4. CONCLUSIONS AND RECOMMENDATIONS

4.1 Conclusions

1. Youth and women have limited access to financial services and products. Most of them are excluded from financial services and products. A small percentage of the youth (20.92%) have access to both formal prudential and formal non-prudential services and products as a percentage of the total population. An average of 59 per cent of youth living in rural areas and 36 per cent living in urban areas are excluded. Generally, 16 per cent of women have access to finance from institutions offering both formal and non-formal prudential services and products. Sixty six (66) per cent of women living in rural areas are excluded, compared to 51 per cent of those living in urban areas.

2. The number of financial institutions giving agricultural loans constitutes a small proportion of the institutions that provide loans, namely: 10 SACCOs, 4 commercial banks, and one micro-finance bank, and 14 micro-finance institutions.

3. The number of youth taking loans: More youth in rural areas access loans compared to youth in urban areas. The number indicates that three times more youth living in rural areas take loans compared to their urban counterparts. In terms of proportions, more urban youth (31%) access loans from formal institutions compared to rural youth (18%). Female youth in rural areas (9%) access more loans than their male counterparts (6%). When the number of loans are taken into account, a larger percentage of the youth only take one loan, and for youth living in both rural and urban areas, more women above the age of 20 take loans compared to male youth. Contextually, access to finance from formal institutions by the youth is a policy issue, although those in urban areas have more access than those in rural areas.

4. Access to loans for agriculture: More youth in rural areas (87.8%) access loans compared to those in urban areas (12.2%). Further, access to loans increases with age; female youth in rural areas (69.8%) take more loans compared to their male counterparts (30.2%). Regarding the amount borrowed for agricultural loans, youth in urban areas borrow more on average (Ksh 51,166) compared to those in rural areas (Ksh 46,794). Furthermore, the average amount of agricultural loans is higher for males (Ksh 62,007) compared to women (Ksh 35,953). Informed by this finding, female youth seem to be facing more bottlenecks in accessing loans for agriculture compared to male youth.

5. Most women living in rural and urban areas take one loan (588,720) with the age cohort 35-65 being the most active. This age cohort constitutes a third of women population taking loans. Women living in rural areas (1,150,016) take more agri-business loans compared to those in urban areas (147,804). Most of the loans are used to meet day to day farm activities, buy farm inputs and assets, expand their farms, and diversify their agri-business activities. The age cohort 35-65 borrows on average the largest amounts (Ksh 9,109- rural and

Ksh 9,540 urban) for agricultural purposes despite the area of residence, with the rural population recording a higher maximum (Ksh 439,000).

6. The main source for financial information for both women and men is from their peers. This informs their decisions on credit, savings and insurance, implying that communal channels of communication are critical for information flow. Level of awareness increases with age, in both rural and urban areas. Males in urban areas have higher levels of awareness compared to females. In rural areas, females have higher awareness levels compared to males.

7. The levels of financial numeracy among youth and women living in urban areas are higher than those in rural areas: Overall, among youth male and female, an estimated 60 per cent have no knowledge of Credit Reference Bureau (CRB). The financial numeracy of male and female youth in all the age cohorts in urban areas has better numeracy skills compared to those in rural areas. Over 48 per cent of youth in both rural and urban areas were able to read and interpret the costs of mobile money transactions. Women in urban areas in all age cohorts have more knowledge about Credit Reference Bureau (CRB) compared to those in rural areas. The levels of financial numeracy among women in urban areas are higher than those in rural areas. Females in age cohort 15-19 in urban (65%) and rural (46%) areas record the highest levels of numeracy compared to other cohorts. Over half (50%) of the respondents were able to read and interpret the costs of mobile money transactions, implying financial literacy levels among them.

8. Access to various forms of collateral: Results show that female youth have access to various collateral items (15%) compared to their male counterparts (4%). The access to various collateral instruments increases with age. For women living in rural areas, the collateral item used were mainly moveable assets, salary and guaranteed by another person. For those living in urban areas, the items were land titles, salaries and guaranteed by another person.

9. Key production activities: Youth aged 30-34 living in rural areas are the most active age cohort and use agri-finance for agricultural production activities (505,906) and livestock trade in products (75,947). Specifically, more female youth are involved in agricultural production (21%) and livestock trade (22%) while the males (17 %) are agricultural producers and 20 per cent are involved in livestock trade.

10. Women participation in agricultural value chains: a mapping conducted with women involved in retail trade showed that women participate at all stages: in input supply (8%); production (23%); aggregation (15%), where they provide services for different commodities at different stages. The proportion of women engaged at the different levels indicated that 31 per cent of the women are involved in marketing with 55 per cent of their consumers being individuals. Only 6 per cent of the women were involved in transport, 11 per cent in storage and 7 per cent in value addition stages of the value chain. This implies that there are opportunities to support women to participate in all stages of the value chain for different agricultural commodities in support

of agricultural trade. However, further research is required to quantify and qualify the level of participation.

11. Women Empowerment in Agriculture Index (WEAI): Based on a study carried out in July 2018, the abbreviated Women Empowerment in Agriculture Index (a-WEAI) was 0.921 for 5DE score, 0.970 for GPI score and 0.925 for a-WEAI. This implies that between 2016 to 2018, all three indices improved for Kenya, and that 74.5 per cent of women were considered empowered based on a-WEAI methodology.

12. Individuals who have accounts in a formal institution, tertiary education and are in a higher wealth income quantile have a higher probability to access agricultural finance. Specifically; the results for the determinants of access to agri-finance show that individuals who have accounts with a financial institution have a 39 per cent chance of accessing agri-finance. Education at tertiary level gives one a 7 per cent higher probability of access to agri-finance. Another determinant is wealth quintile; higher wealth quintile increases the probability by 4.3 per cent.

'**Big Four' Agenda**

13. The 'Big Four' agenda focuses on ensuring that the Kenya Vision 2030 targets are met. Two pillars are mentioned in this report, namely: food and nutrition security pillar and the manufacturing pillar. The emphasis is on the potential to support women and youth promoting and enhancing smallholder productivity under the food security and nutrition pillar. The target is to establish 1,000 small micro enterprises using a performance-based incentive model along the value chain, in addition to improving access to credit/input for farmers through Warehouse Receipt System and strengthening of commodity fund. Under the manufacturing pillar, potential for support to youth and women in agriculture lies in textile/apparel/cotton, leather, agro- processing and market access.

Sustainable Development Goals

14. Financial inclusion has been recognized as an important driver to achieving various economic and welfare improvements. Furthermore, it plays an important role in enabling people to increase their income and expand business. Goal 1 and Goal 8 set the specific financial inclusion indicators: Goal 1: a decline in proportion of population living below the national poverty line from 46.6 per cent in 2014 to 36.1 per cent in 2016. Regarding land tenure rights, 94 per cent - men only owned title deeds; 5 per cent - women and men owned title deeds; and 1 per cent men only owned title deeds. Goal 8: Number of commercial bank branches per 100,000 adults is seven (7), and the number of automated teller machines (ATMs) per 100,000 adults is eleven (11).

Recommendations

1. Provide incentives to mobilize participation of financial institutions in provision of agricultural financial services and products. The agriculture sector has risks and costs that are in many cases beyond the control of the actors involved, thus the need to incentivize financial service provision. This effort needs to be complemented by adequate data on the different production systems, which will be useful in providing a basis for innovative options for financial institutions to develop appropriate services and products.
2. Enhance programmes that focus on improving the financial literacy of youth and women: Efforts should be made to introduce financial literacy in the school curriculum at all levels – primary, secondary and tertiary level. This will go a long way in preparing the youth for entrepreneurship, by providing them with a combination of knowledge and skills required to make informed financial decisions. These efforts should consider that the youth are not a homogenous group and have different needs depending on their age, gender and local context.
3. Explore the potential for financial services and products that do not require fixed collateral: Youth and women usually have difficulty in gaining access to traditional sources of financing due to their little experience and few assets. Alternative forms of collateral need to be explored and institutionalized to benefit the youth and women, such as contract farming, leasing, and warehouse receipt finance.
4. Promote the use of information technology and communication (ICT) in the provision of financial services and products: Digital platforms enhance the delivery of information, thus opening opportunities for youth and women to access several services including trainings, markets, goods and financial services just to mention but a few.
5. Strengthen the level and magnitude of participation of youth and women along the value chain: There is opportunity to identify where youth and women can thrive. These opportunities exist at all stages of the value chain so long as they provide certain minimum levels of profitability and sustainability for enterprises led by youth and women.

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Appendix

A1: Classification of the access to finance

Classification	Definition	Institution type
Formal (prudential)	Financial services used through prudentially regulated service providers and are supervised by independent statutory agencies (CBK, CMA, IRA, RBA and SASRA).	Commercial banks (includes mobile bank accounts such as KCB M-Pesa, MCo-op Cash and M-Shwari)
		Microfinance banks
		Capital market intermediaries
		Insurance service providers
		Deposit taking SACCOs (DTSs)
Formal (non-prudential)	Financial services through service providers that are subject to non-prudential oversight by government departments/ministries with focused legislations or statutory agencies	Mobile financial services (MFSs)
		Postbank
		NSSF
		NHIF
Formal (registered)	Financial services through providers that are legally registered and/or operate through direct government interventions	Credit only micro-finance institutions (MFIs)
		Non-deposit taking SACCOs
		Hire purchase companies
		Development financial institutions (DFIs) e.g. AFC, HELB, ICDC and JLB
Informal	Financial services through forms not subject to regulation, but have a relatively well defined organizational structure	Groups, e.g. ASCAs, *chamas* and ROSCAs
		Shopkeepers/supply chain credit
		Employers
		Moneylenders/shylocks
Excluded	Individuals who report using financial services only through family, friends, neighbours or keep in secret places	Social networks and individual arrangements (e.g. secret hiding place)

Source of data: FinAccess (2019)

A2: Coefficients for multinomial logit model for access strands to various determinants of access to agricultural finance

Agri_Fin_Access	Coef.	Std. Err.	z	P>z	[95% Conf.	Interval]
Formal prudential						
Gender_01	-1.325655	0.7932052	-1.67	0.095	-2.880308	0.2289991
Mobile ownership	3.221888	0.9370047	3.44	0.001	1.385392	5.058384
Saving	1.833128	1.143145	1.6	0.109	-0.4073943	4.07365
Ownership of formal financial account	21.934	669.621	0.03	0.974	-1290.499	1334.367
Land ownership	0.3823262	0.7637479	0.5	0.617	-1.114592	1.879245
Education	1.436378	0.6165379	2.33	0.02	0.2279861	2.64477
Marital	0.2854953	0.3628027	0.79	0.431	-0.425585	0.9965756
Wealth quintile	-0.3628667	0.3487483	-1.04	0.298	-1.046401	0.3206674
Average cost to nearest financial provider	-0.2357699	0.293225	-0.8	0.421	-0.8104802	0.3389405
Age of respondent	-0.1423217	0.141383	-1.01	0.314	-0.4194273	0.134784
Age_squared	0.0016883	0.0015017	1.12	0.261	-0.0012549	0.0046316
Household size	-0.2862055	0.1937713	-1.48E+00	1.40E-01	-0.6659902	0.0935793

Monthly income	3.76E-04	0.0001061	3.55	0.00E+00	1.68E-04	0.0005842
_cons	-6.677476	3.001244	-2.22	0.026	-12.55981	-0.795147
Formal_Non_ prudential	**Coef.**	**Std. Err.**	**z**	**P>z**	**[95% Conf.**	**Interval]**
Gender_01	-1.348757	0.7776937	-1.73	0.083	-2.873008	0.1754949
Mobile ownership	3.227556	0.858052	3.76	0	1.545805	4.909307
Saving	2.354444	1.098195	2.14	0.032	0.2020207	4.506866
Ownership of formal financial account	19.3718	669.6208	0.03	0.977	-1293.061	1331.804
Land ownership	0.1924794	0.7431016	0.26	0.796	-1.263973	1.648932
Education	0.9848853	0.6060047	1.63	0.104	-0.202862	2.172633
Marital	0.2799975	0.3562696	0.79	0.432	-0.4182781	0.9782732
Wealth quintile	-0.6686496	0.3423157	-1.95	0.051	-1.339576	0.0022768
Average cost to nearest financial provider	-0.1553593	0.2804462	-0.55	0.58	-0.7050237	0.3943052
Age of respondent	-0.1825033	0.1387911	-1.31	0.189	-0.4545289	0.0895222
Age_squared	0.0018981	0.0014747	1.29	0.198	-0.0009922	0.0047885
Household size	-0.2396963	0.1894217	-1.27	0.206	-0.610956	0.1315634
Monthly income	0.0003232	0.0001057	3.06	0.002	0.0001161	0.0005303
_cons	-1.796286	2.82903	-0.63	0.525	-7.341083	3.748512
Formal_Registered	**Coef.**	**Std. Err.**	**z**	**P>z**	**[95% Conf.**	**Interval]**
Gender_01	0.4377343	1.639014	0.27	0.789	-2.774675	3.650144
Mobile ownership	0.4200313	2.008084	0.21	0.834	-3.515742	4.355805
Saving	19.74553	16158.34	0	0.999	-31650.03	31689.52
Ownership of formal financial account	16.20237	669.6229	0.02	0.981	-1296.234	1328.639
Land ownership	-2.139845	1.912865	-1.12	0.263	-5.888991	1.609302
Education	1.603601	1.274161	1.26	0.208	-0.8937083	4.10091
Marital	1.074305	0.7801237	1.38	0.168	-0.4547098	2.603319
Wealth quintile	-0.9827952	0.7161866	-1.37	0.17	-2.386495	0.4209046
Average cost to nearest financial provider	-14.59188	4876.869	0	0.998	-9573.08	9543.896
Age of respondent	0.1673552	0.672635	0.25	0.804	-1.150985	1.485696
Age_squared	-0.0038084	0.0098174	-0.39	0.698	-0.0230501	0.0154333
Household size	-0.376732	0.4127512	-0.91	0.361	-1.18571	0.4322456
Monthly income	0.0002854	0.0001502	1.9	0.057	-8.88E-06	0.0005797
_cons	-11.62709	16878.27	0	0.999	-33092.43	33069.17
Informal	**Coef.**	**Std. Err.**	**z**	**P>z**	**[95% Conf.**	**Interval]**
Gender_01	-0.8402453	0.6165369	-1.36	0.173	-2.048635	0.3681448
Mobile ownership	0.8614346	0.6711331	1.28	0.199	-0.4539622	2.176831
Saving	1.181523	0.6404392	1.84	0.065	-0.0737148	2.436761
Ownership of formal financial account	-1.376586	1147.359	0	0.999	-2250.159	2247.406
Land ownership	0.264202	0.5909426	0.45	0.655	-0.8940242	1.422428

Education	-0.002498	0.4961822	-0.01	0.996	-0.9749974	0.9700013
Marital	0.1937007	0.2738347	0.71	0.479	-0.3430055	0.7304069
Wealth quintile	-0.3997168	0.2890243	-1.38	0.167	-0.9661941	0.1667604
Average cost to nearest financial provider	-0.1345891	0.1774659	-0.76	0.448	-0.4824158	0.2132376
Age of respondent	0.2446472	0.1113635	2.2	0.028	0.0263789	0.4629156
Age_squared	-0.0026917	0.0011691	-2.3	0.021	-0.0049832	-0.0004
Household size	-0.0269134	0.1365405	-0.2	0.844	-0.294528	0.2407012
Monthly income	0.0001216	0.0000992	1.23	2.20E-01	-0.0000729	0.0003161
_cons	-5.144038	2.391979	-2.15	0.032	-9.83223	-0.455845
Excluded	Base Outcome					
Multinomial logistic regression	Number of obs	=	953			
	LR chi2(52)	=	834.53			
	Prob > chi^2	=	0			
Log likelihood = -507.27251	Pseudo R^2	=	0.4513			

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