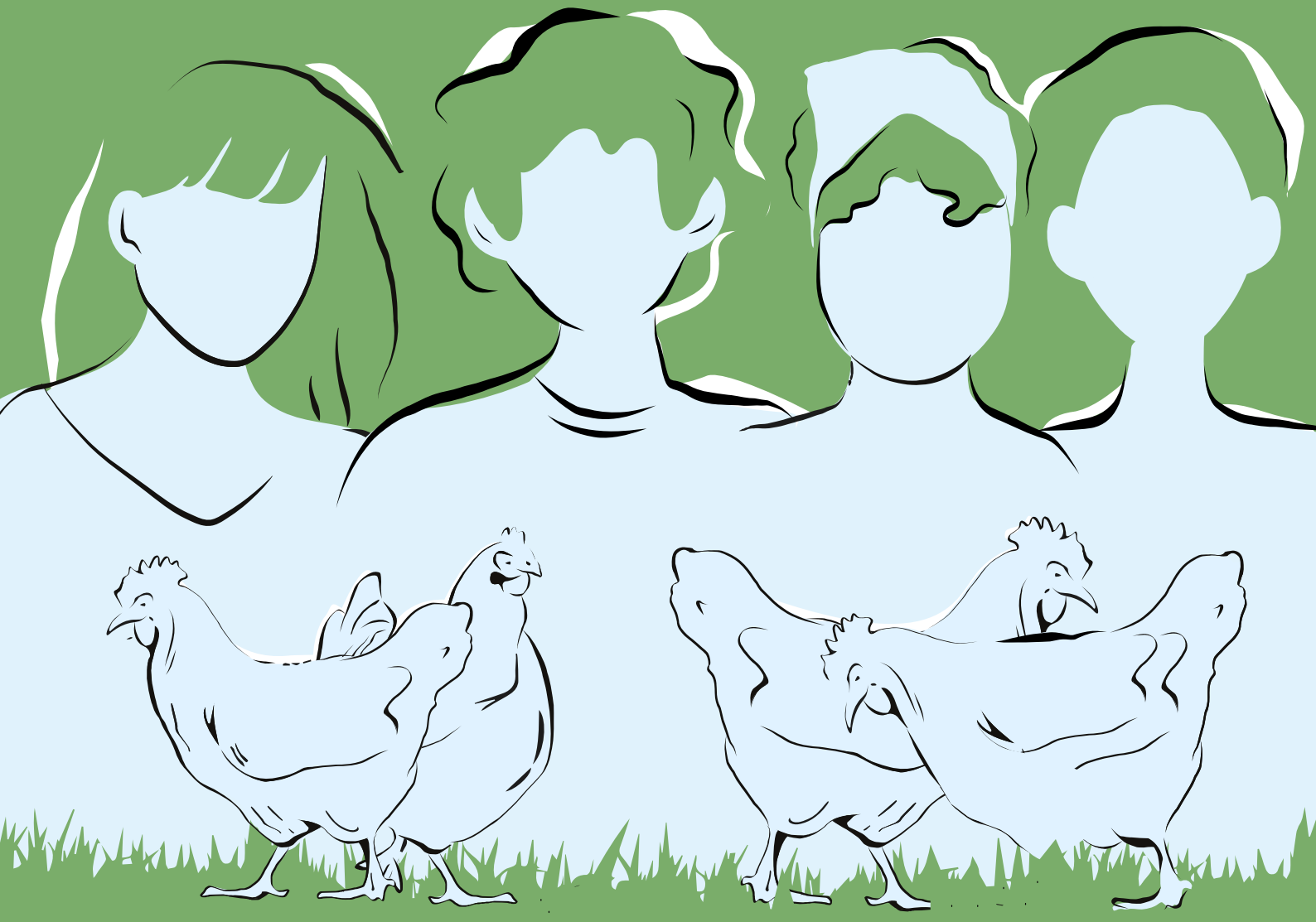
Food and Agriculture Organization of the United Nations

AFRICA SUSTAINABLE LIVESTOCK 2050

Presence and biosecurity practices of youth in the poultry value chain

Evidence from urban and peri-urban sub-regions of

KENYA & UGANDA



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Financial support provided by the United States Agency for International Development (USAID)

ASL 2050

Required citation:
FAO. 2022. *Africa Sustainable Livestock 2050: Presence and biosecurity practices of youth in poultry value chains – Evidence from urban and peri-urban subregions of Kenya and Uganda.* Rome, FAO.
https://doi.org/10.4060/cc0427en

ISBN 978-92-5-136349-2

Contents

Key messages

- The presence of youth along the poultry value chain with respect to their share in the total working age population is 16 to 32 percentage points lower in Kenya and 5 to 27 percentage points lower in Uganda.
- The data presented is on predominantly urban and peri-urban areas, the presence of youth is expected to be lower in rural areas.
- The sample includes mainly small and mid-size business-oriented entrepreneurs and not subsistence-oriented backyard poultry keepers.
- The share of young people is particularly low among producers, which may be due to high initial investment requirements.
- The average number of birds raised per year is lower among the age groups under 40 in Kenya, while differences in size of business are smaller in Uganda.
- The share of women is lower among young people along the entire value chain, which may be due to them being occupied with raising children and the lack of backyard poultry keepers in the sample.
- At the marketing node, considerably more young people have fixed stalls and use plastic or metal cages than their older colleagues.

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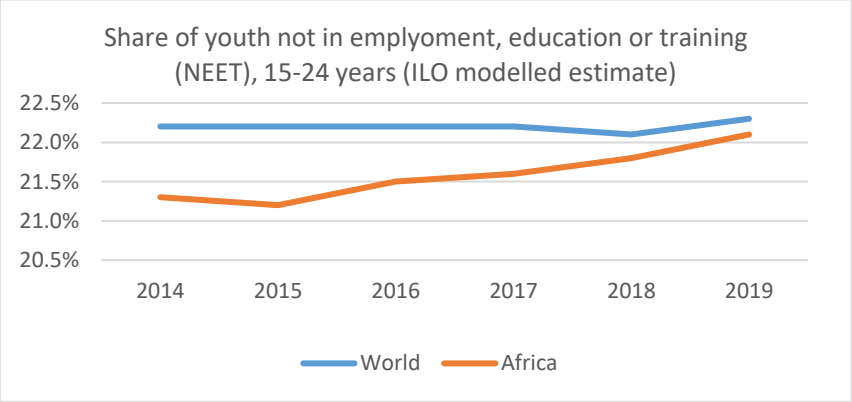
Introduction

Youth empowerment and in particular youth employment have been an increasingly important topic on governments' national and international agenda. Under the framework of the Malabo Declaration (2014), African governments committed to create job opportunities for at least 30 percent of youth in agricultural value chains (AU, 2014). Target 8.6 of the Sustainable Development Goals (SDGs) envisioned a substantial reduction of youth not in employment, education or training (NEET) by 2020 (UN, 2021). Figure 1 shows, however, that the world average of the share of youth aged 15 to 24 years old in NEET between 2014 and 2020 is stagnating, while there is a slight increase in NEET rates on the African continent. This suggests that, despite international recognition of the importance of youth employment and empowerment, there is much room for improvement.

Figure 1 Youth not in employment, education or training (NEET), ILO estimates



Source: ILO (International Labour Organization). 2021. ILOSTAT Explorer. In: ILO. Geneva. Cited 01 December 2021. https://www.ilo.org/shinyapps/bulkexplorer34/?lang=en&segment=indicator&id=EIP_NEET_SEX_AGE_NB_A

Growing population, increasing urbanization rates and increasing income levels in the African continent will result in a great rise in demand for animal source foods. The growing livestock sector has great potential to provide employment opportunities. However, there is limited interest among young people in engaging in livestock activities, particularly in rural areas (FAO, 2014a): despite the very young population, the average age of a farmer in Africa is about 60, the same as that of developed countries (FAO, 2014b).

Young people face many challenges that limit their ability to engage in agricultural activities. They have limited access to land, current inheritance laws and customs make the transfer of land difficult particularly to young women. Also, the youth have limited access to credit due to lack of collateral and financial literacy (FAO, 2014a).

Engaging the youth in agriculture could contribute to their empowerment and employment and could revolutionize the sector as ageing farmers are less likely to adopt new technologies. In this brief we present some observations on the presence and characteristics of youth in urban and peri-urban poultry value chains in four sub-regions, two Kenyan counties and two Ugandan districts.

Method

The FAO Africa Sustainable Livestock 2050 (ASL 2050) collected data on the practices of actors of the poultry value chain in two urban and peri-urban counties in Kenya and two urban and peri-urban districts in Uganda through key informant interviews. The purpose was to identify gaps in the implementation of biosecurity related practices that reduce public health risks coming from the sector, such as outbreaks of zoonotic diseases and livestock-associated antimicrobial resistance (AMR), to then support policy changes for a more sustainable development of the poultry sector in the long-term. Data were gathered in rapidly expanding urban and peri-urban areas where growing human and animal population density can lead to more frequent human-livestock interaction, which may in turn increase the risk of outbreak and spread of zoonotic diseases. Indeed, out of the total population increase up to 2050 in Kenya and Uganda, 66 percent (FAO, 2019a) and 60 percent (FAO, 2019b) will occur in urban areas and already today there's evidence that livestock density in cities and towns is as high as in rural areas.

On the ground, the poultry value chain differs by production system, connections are non-linear, and it includes a wide range of nodes and actors, often with overlapping functions (e.g. slaughtering on farm or at the market). As the objective of the survey was to assess actors' compliance with biosecurity related practices and not to characterize the poultry value chain, we interviewed actors performing four key functions: production, transport of live birds and meat, processing or slaughtering and marketing/retail. Accordingly, we developed a survey questionnaire on basic characteristics and compliance with biosecurity related practices for each of these actors. In both countries, we trained local government staff to carry out the data collection through interviews.

During July to September 2020, we collected data in urban and peri-urban areas in Kenya and Uganda: two counties, Kiambu and Nairobi City in Kenya, and two districts, Mukono and Wakiso in Uganda. All four areas are among the most populous in their respective countries, with total population ranging from 0.6 million people in Mukono (Uganda) to 4.3 million people in Nairobi City (Kenya).

In Uganda, the team talked with local officers to generate a list of key actors at the different value chain nodes, and then used a snowball sampling approach to identify the sample population. Only producers with an average batch size of at least 200 birds were targeted, and the final sample included no less than ten producers in each sub-county/administrative unit, resulting in 214 participants. The sample participants, therefore, are all small business-oriented entrepreneurs and not subsistence-oriented backyard poultry keepers. For transporting, processing and marketing all accessible subjects were approached, resulting in a sample size of 41, 55 and 99, respectively. In Kenya, the interviewees were randomly selected from a list of poultry actors possessed by the frontline staff in the three sub-counties in Kiambu and the two sub-counties in Nairobi, where poultry related activities are widespread. A total of 180 respondents were reached including 100 producers, 20 transporters, 30 processors (slaughterers) and 30 live bird/ poultry meat retailers.

Table 1 Sample size for each area and value chain node

Sample size per district/county	Kiambu	Nairobi	Kenya total	Mukono	Wakiso	Uganda total
Production	60	40	100	75	139	214
Transport	12	8	20	17	24	41
Slaughter	18	12	30	19	36	55
Marketing	18	12	30	48	51	99

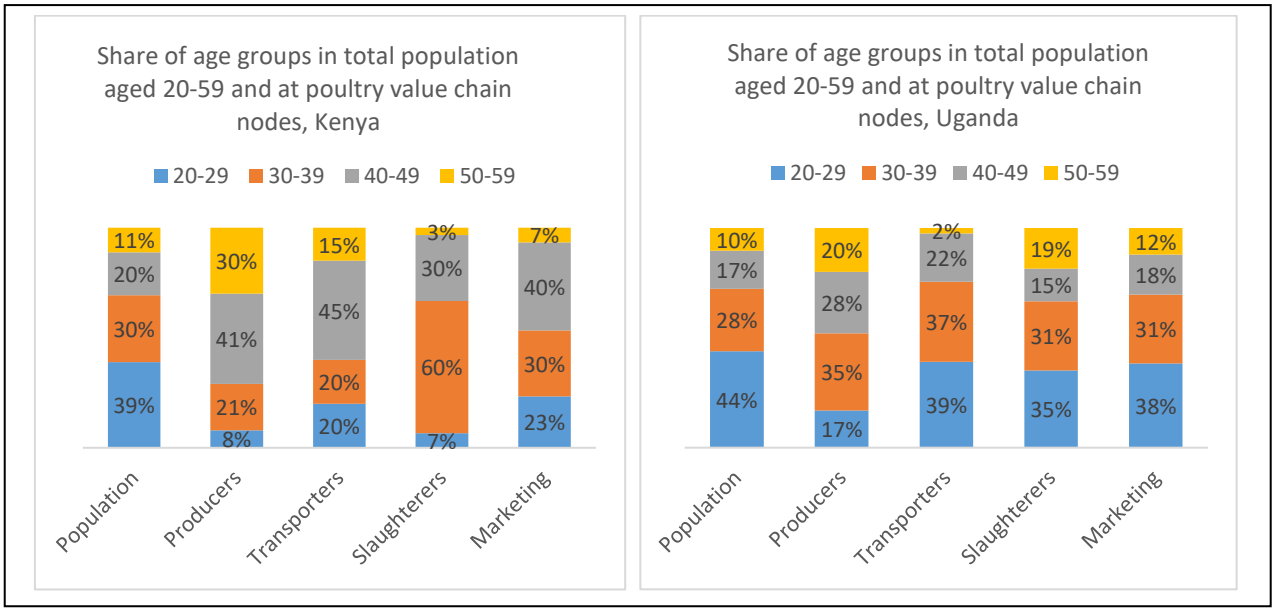
Source: Own data

This brief presents results of the ASL 2050 survey disaggregated by age group, with a focus on those under 30 years old. Note that the sample size is small, focuses on specific areas and target audiences, i.e. poultry value chain actors from urban and peri-urban areas. Results, therefore, should be evaluated within this context and cannot be generalized to the entire country or other stakeholders. Age groups are defined as under thirty years old, 30 to 39 years old, 40 to 49 years old and 50 to 59 years old. The original purpose of the survey was not to assess the status of the youth, and we cannot disaggregate information to match the United Nations (15 to 24 years old) or African Union (25 to 35 years old) definition of youth.

Representation

The share of youth working along the poultry value chain is lower than their share in the total population in both countries. This is particularly true for producers: in Kenya and Uganda only 8 and 17 percent of producers are under the age of 30, while the share of population aged 20 to 29 years old is 39 and 44 percent, respectively. The gap is smaller (35 to 39 percent with respect to 44 percent in the total population) for the other value chain nodes in Uganda, while in Kenya a very small share of slaughterers (7 percent), transporters (20 percent) and retailers (23 percent) are under 30.

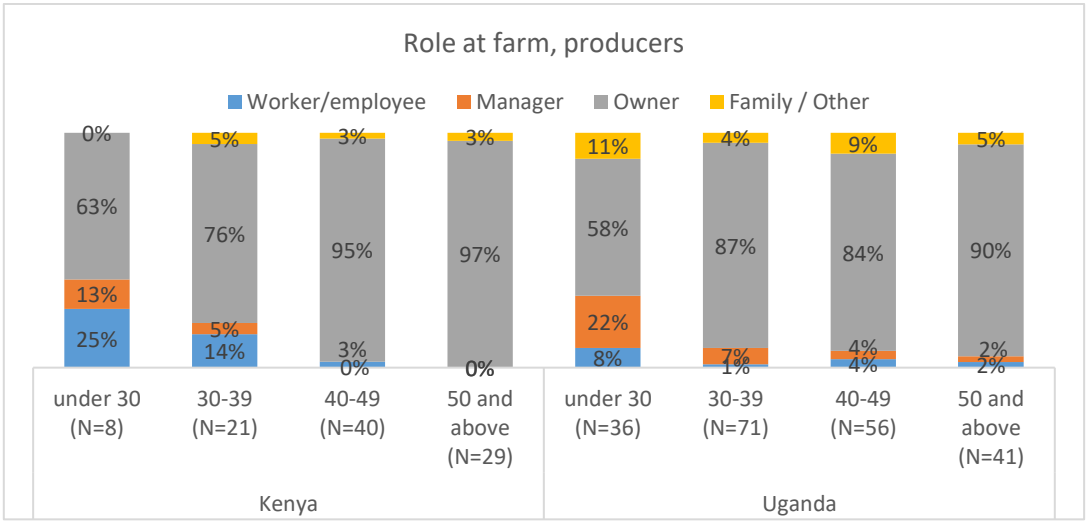
Figure 2 Share of age groups in population ages 20-59 and along the poultry value chain



Source: UNDESA (United Nations Department of Economic and Social Affairs). 2021. Demographic Statistics Database. In: UN Data. New York. Cited 01 December 2021. http://data.un.org/Data.aspx?d=POP&f=tableCode%3A22

The low presence at the production node may be due to entry barriers: poultry is a complex business and requires experience and resources. As mentioned in the introduction, young people often have limited access to land and credit that prevents them from starting their own farm (FAO, 2014a). Also, many businesses are family owned and producers become owners when their parents pass away. Figure 3 shows that, with respect to other age groups, producers under 30 are less likely to own the farm they are working on in both countries. An assessment of the enterprise budgets of poultry producers in the four sub-regions shows that the typical profit of a producer equals two to three times the GDP per capita, suggesting that poultry farming is a profitable and attractive business. The assessment also shows that the typical profit is enough to sustain two to four families above the poverty line (FAO, forthcoming). These results suggest that the low presence of youth among producers is likely due to high entry barriers and not because poultry is not a good business. We must note, however, that our sample includes only small entrepreneurs and not backyard poultry keepers: our observations are true only in this context.

Figure 3 Role at farm by age group

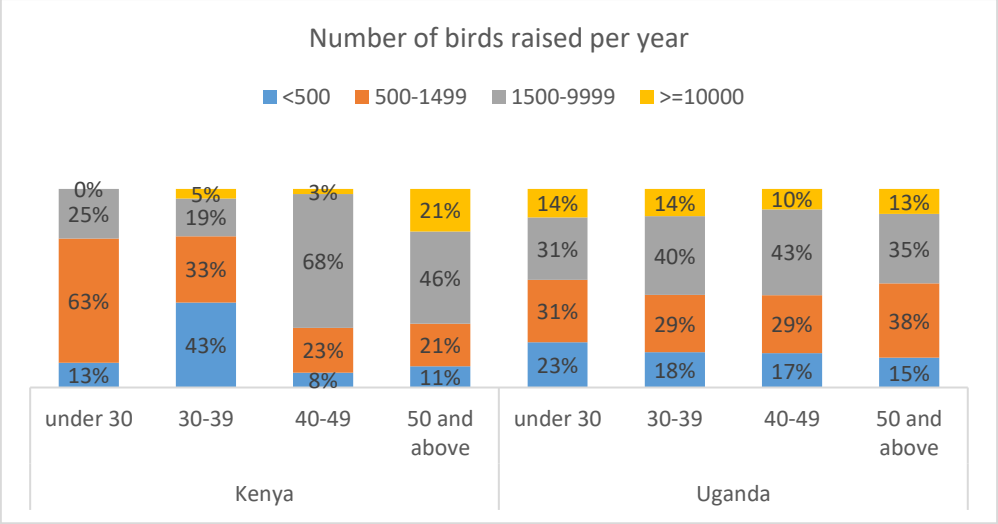


Source: Own data

Size of business

Figure 4 presents the distribution of farm size by age group in the two countries. In Kenya, 76 percent of producers under 40 raise less than 1 500 birds per year, while this share is only 31 and 32 percent among the 40-49 and 50 and above age groups, respectively. This suggests even if younger producers manage to start a business, their resources allow operating only small businesses. In Uganda on the other hand the distribution in more equal, only 54 percent of producers under 30 raise less than 1 500 birds per year while this share is 47, 46 and 53 percent among the 30-39, 40-49 and 50 and above age groups, respectively.

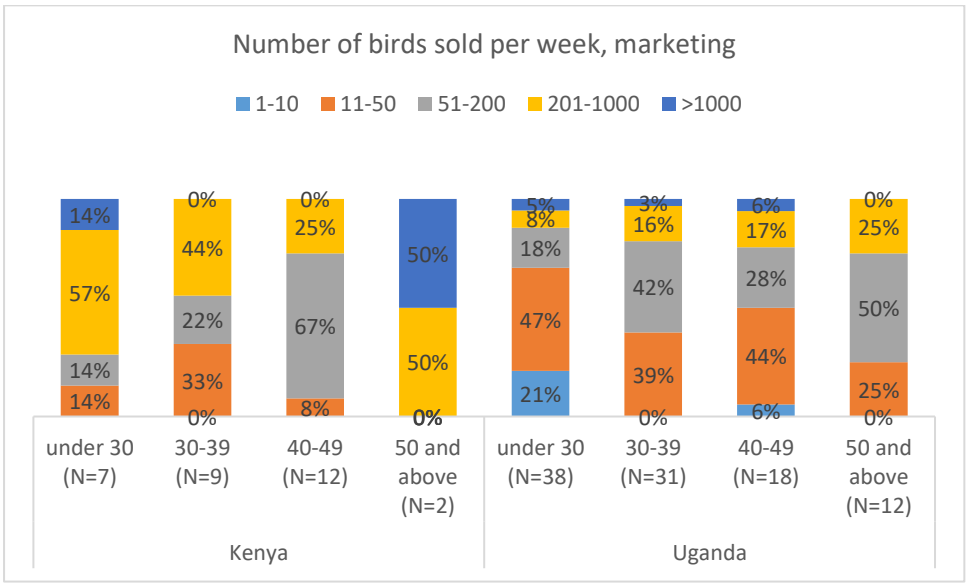
Figure 4 Number of birds raised per year, producers



Source: Own data

Figure 5 presents the number of birds sold per week at the marketing node. Note that the sample for Kenya is very small (30 respondents) and therefore conclusions have to be made with caution. Among retailers under 30, 14 percent sell 50 or less birds, while this share is 33, 8 and 0 percent among the 30-39, 40-49 and 50 and above age groups. This indicates that, similar to the production node, value chain actors under 40 have on average smaller businesses. In Uganda, the average size of businesses is smaller than that of Kenya, with 68, 39, 50 and 25 percent of retailers selling less than 50 birds in the under 30, 30-39, 40-49 and 50 and above age group, respectively.

Figure 5 Number of birds sold per week by age group



Source: Own data

There were no clear patterns emerging among slaughterers and transporters, and since the sample size is very small with often only one observation per age group, we do not present results in this review.

Gender

In both countries, the share of women is lower among the youth than in other age groups. For simplicity, Figure 6 shows the gender distribution of those under 30 and 30 and above. In Kenya, the share of women among the under 30 age group never exceeds one quarter, while women in the 30 and above age group present 60, 50 and 52 percent of producers, transporters and retailers, respectively. There are very few female slaughterers, none in the under 30 category and only 14 percent among the older age group.

In Uganda, there is a considerate share of women among the under 30 age group at the production node (43 percent) and at the marketing node (35 percent). At both nodes however, the share of women in the 30 and above age group is much higher, 61 and 58 percent, respectively. There are no women under 30 at the transporting node and their presence is only 4 percent among the 30 and above group. Among slaughterers, women present 22 percent of the young group, while their share is nearly double (43 percent) in the 30 and above group.

Figure 6 Gender distribution at different nodes of the value chain

Source: Own data

Compliance with biosecurity practices

As mentioned in the introduction, the primary goal of the data collection was to gather information on the extent to which value chain actors comply with biosecurity relater practices. The interviews did not directly enquire about compliance with selected biosecurity practices, but rather asked descriptive questions that did not point to the "correct" answer, to avoid social desirability bias. Therefore, in some cases, we do not have explicit information on the practice itself (e.g. cleaning) but only on a proxy (e.g. access to clean water).

There is a high rate of compliance with the assessed practices among producers in all age groups. More than 90 percent of producers under 30 comply with 4 out of the 12 practices, and there are only two practices for which compliance is under 70 percent. These two practices are reporting sick and dead birds, which are rarely complied with in all of the age groups. The other practices for which there is high compliance, there are direct implications on biosecurity and birds' health (e.g. cleaning or separating sick bird to avoid spread). We observed no strong difference between the younger age group and the others.

Table 2 Producers' compliance with assessed biosecurity related practices

Producers	<30	30-39	40-49	>=50	Total
Report dead birds to veterinary official	25%	36%	38%	26%	33%
Report sick birds to veterinary official	37%	40%	42%	32%	38%
Bury/incinerate dead birds	70%	53%	61%	65%	61%
Always gives medicine as advised by vet/health professional	80%	75%	63%	59%	69%
Can name at least one disinfectant	70%	80%	78%	76%	77%
Separate bird from flock if suspected sick	78%	78%	73%	78%	77%
Can easily find veterinary professional	86%	88%	82%	69%	81%
Always observes recommended dosage of medicine	75%	84%	76%	73%	79%
Do not sell sick or dead birds	98%	83%	87%	90%	88%
Always have access to sufficient amount of cleaning water	93%	89%	94%	87%	91%
Can afford necessary vaccines	93%	92%	90%	86%	90%
Clean drinkers daily	98%	90%	95%	94%	93%

Source: Own data

Compliance rates are lower among transporters in all of the age groups. The level of compliance is considerably lower than the other age groups for three out of the nine practices. None of the transporters under 30 carry a movement permit every time they transport poultry, though the rate of compliance is low in the other age groups (11 to 25 percent) too. Only six percent of young transporters report dead birds to an official compared to 12 to 25 percent in the other age groups. Finally, only one quarter of young transporters separate birds from the flock when they suspect it's sick with respect to 50 to 71 percent among the other age groups.

Table 3 Transporters' compliance with assessed biosecurity related practices

Transporters	<30	30-39	41-49	>=50	Total
Always has movement permit	0%	11%	11%	25%	8%
Report dead bird to an official	6%	16%	12%	25%	12%
Bury/incinerate dead birds	22%	16%	35%	25%	24%
Separate bird from flock when sickness suspected	25%	56%	71%	50%	49%
Clean cages after each transport	35%	42%	39%	0%	36%
Can name at least one disinfectant	70%	53%	72%	50%	64%
Use metal or plastic cage (not a wooden crate)	75%	63%	72%	25%	67%
Always has access to sufficient amount of cleaning water	85%	84%	100%	100%	90%
Never transports poultry with other animals	93%	100%	92%	100%	95%

Source: Own data

Compliance with good practices among slaughterers is similar across age groups: as for producers, there is low compliance with reporting sick birds to officials. There are only three practices out of ten in total where compliance rates are higher than 50 percent: keeping a clean environment around the slaughterhouse, use of disinfectants (can name at least one disinfectant) and always having sufficient amount of cleaning water.

Table 4 Slaughterers' compliance with assessed biosecurity related practices

Slaughterers	<30	30-39	41-49	>=50	Total
Use traps against pest/vermin	15%	34%	20%	9%	23%
Declined slaughter in last 12 months because bird was sick	29%	30%	25%	20%	28%
Report sick bird to an official	30%	23%	29%	33%	28%
Have license renewed in the last 6 months	26%	29%	25%	11%	25%
Visit by vet/inspector at least weekly	24%	51%	29%	18%	36%
Slaughter in a licensed facility	43%	51%	35%	18%	41%
Cleans the premises after each slaughter	30%	68%	47%	36%	50%
Keep clean environment around slaughterhouse	80%	63%	73%	73%	71%
Can name at least one disinfectant	81%	71%	76%	73%	75%
Always has sufficient amount of cleaning water	95%	86%	88%	100%	90%

Source: Own data

In the case of market sellers, there are three out of the assessed eight practices where younger age groups show higher compliance. About 70 and 74 percent of retailers in the under 30 and 30-39 age groups clean the cages daily, respectively, while this share is under 50 percent in the older age groups. More than 90 percent of young retailers under 40 use a metal or plastic cage that is easy to clean, while this share is only 68 percent among the age group of 40- to 49-year-olds and 29 percent in the 50-years-old and above group. Similarly, the share of retailers having a fixed stall decreases from 89-95 percent to 73 and 31 percent as age increases.

Table 5 Compliance with assessed biosecurity practices at the marketing node

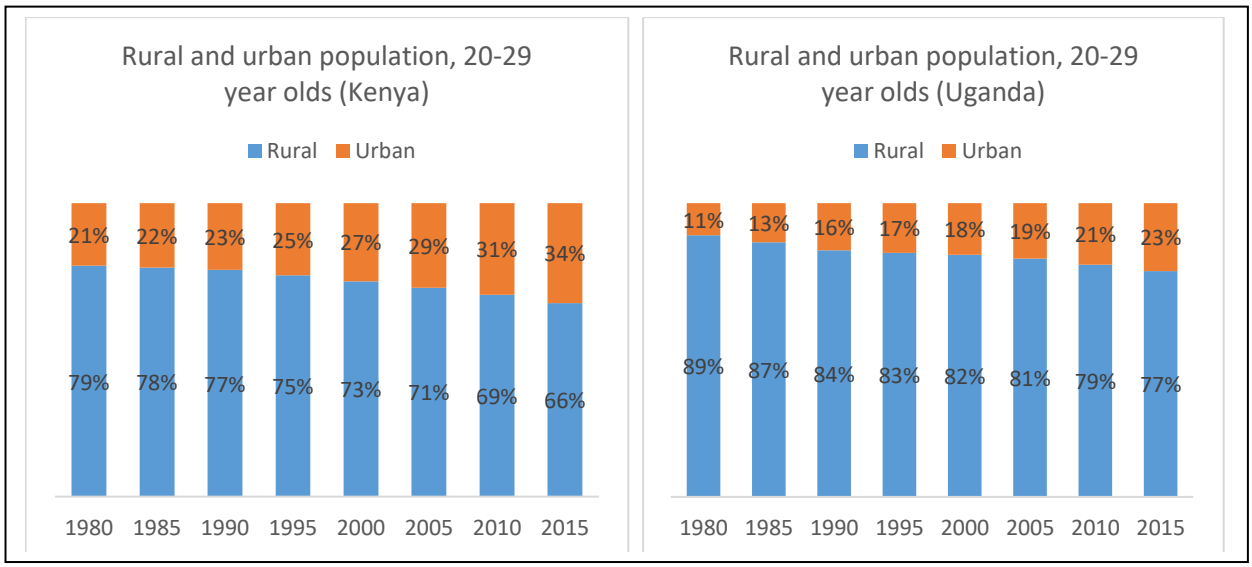
Marketing	<30	30-39	41-49	>=50	Total
Keep birds for less than a day at the market	7%	5%	13%	0%	7%
Report dead bird to official	11%	13%	14%	29%	14%
Report sick bird to official	27%	26%	29%	57%	31%
Cleaning cages daily	70%	74%	47%	42%	63%
Not selling dead/sick birds	60%	60%	57%	93%	63%
Use metal/plastic cage	91%	97%	68%	29%	81%
Have a fixed stall	89%	95%	73%	31%	81%
Access to sufficient cleaning water	87%	89%	77%	100%	87%

Source: Own data

Discussion

The growing livestock sector could provide many employment opportunities for the fast-growing young population. The data, however, shows limited presence of youth along the poultry value chain, particularly in Kenya. The data was collected in predominantly urban and peri-urban areas, the trends presented here are probably stronger in the rural areas or the country as a whole as the youth tend to move away from rural areas. Figure 7 shows indeed that the share of urban population among the 20-29 age group for the two countries between 1980 and 2015 has been steadily increasing. The level of urbanization among young people is higher in Kenya than Uganda: this may partially explain the lower share of youth participating in livestock.

Figure 7 Rural and urban population aged 20-29, 1980-2015



Source: UNDESA (United Nations Department of Economic and Social Affairs). 2021. Demographic Statistics Database. In: UN Data. New York. Cited 01 December 2021. http://data.un.org/Data.aspx?d=POP&f=tableCode%3A22

Many of the young producers and retailers in Kenya have smaller businesses than their older colleagues, while in Uganda differences in size of operation are smaller. We note that for Uganda, we had a sample size more than double of that of Kenya (214 with respect to 100) that may influence results.

Women are less represented among young age groups along the entire value chain in both countries than the older age groups. A possible explanation of the low presence of young women can be that

the sample includes small entrepreneurs and younger women tend often to look after children and have less time to engage in full-time poultry related activities. As the children become older and need less attention and eventually leave home, women can spend less time on unpaid household work.

At the marketing node, the age groups under 40 are more likely to have a fixed stall, use more plastic and metal cages that can be cleaned easily, and clean cages on a daily basis. This may demonstrate that young people are more prone to use newer practices and approaches in their business and promote a sustainable development of the sector. Among transporters, the younger age group had a considerably lower compliance level with having a movement permit, reporting dead birds to officials and separating sick birds from the rest of the flock, though compliance levels were generally low across all age groups. We found no differences in compliance with biosecurity practices between age groups among producers and slaughterers.

We reviewed suggestions on increasing youth engagement in agriculture suggested by the Kenya Youth Agribusiness Strategy 2018-2022 (MALF, 2018), the National Strategy for Youth Employment in Agriculture of Uganda (MAAIF, 2017) and FAO (FAO, 2014a). The three main areas of improvement suggested in all three documents are improving agricultural education, access to finance and access to land. The support of training and research centers, capacity building, extension services, agribusiness mentorship and internship programs targeting youth can ensure that they receive education that incorporates agricultural skills and matches the rural market demand and enables them to utilize cutting edge technologies and innovations in agriculture. Information and communication technologies (ICTs) also carry great potential in making agricultural jobs more efficient and dynamic. Providing access and encouraging their use through community information centers and trainings can further improve knowledge sharing.

As mentioned in the introduction, the youth rarely have access to adequate financial services. The national strategies suggest the development of youth-friendly financial and insurance services that help overcome barriers of initial high investments and large risks due to climate dependency. In addition, assisting the youth in forming savings and credit cooperatives and loan associations, and participating in producers' groups may further empower them.

There is a need to raise awareness on how current inheritance laws and customs make transfer of land difficult, in particular to young women, to encourage their amendment. The NSYEA suggests an establishment of a youth land fund and capacity building of community networks. Financial assets such as loans and development of unique land lease arrangements could also improve the youth's access to land.

Empowering youth in agriculture could be a win-win for everyone: young people could gain employment opportunities while they could bring an open mind for a more innovative and sustainable development of the sector. The data shows that currently their participation in the sector is low, which is likely due to lack of access to resources and time due to unpaid household duties for young women. Both countries have in place a strategic framework (MAAIF, 2017 and MALF, 2018) that envisions to improve opportunities for the youth in the sector and to make working in the livestock sector a viable, attractive opportunity.

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