

# YOUTH EMPLOYMENT AND ENTREPRENEURSHIP

## Research Report #3

### Youth Employment in Tanzania: Current Status, Future Challenges, and Policy Priorities

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## Acronyms

AFS	Agrifood system
AI	Artificial intelligence
FAFH	Food away from home
FTE	Fulltime equivalent
ILO	International Labour Organization
LGA	Local government authorities
MATI	Ministry of Agriculture Training Institute
NEEC	National Economic Empowerment Council
OECD	Organization for Economic Cooperation and Development
RNFE	Rural non-farm employment
SIDO	Small Industries Development Organization
SMEs	Small- and medium-sized enterprises
SSA	Sub-Saharan Africa



## 1.0 Introduction

Over the past decade, youth livelihoods have become a major concern for governments across the developing world, and for multi-lateral and bilateral donors engaged with these countries. Numerous countries have developed youth employment strategies and have attempted, with varying success, to implement programs focused on preparing youth to engage productively with the economy. Meanwhile, multi-lateral and bilateral development organizations have generated at least 13 major reports on the topic since 2010, including pieces by the International Fund for Agricultural Development, Food and Agriculture Organization, the Technical Centre for Agriculture and Rural Cooperation, the African Development Bank, the International Labour Organization (ILO), the Inter-American Development Bank, the Organisation for Economic Cooperation and Development (OECD), Oxfam, UNICEF, and the World Bank.

This concern is especially acute in Africa, and is motivated, in the first instance, by the sheer number of youth coming into the job market every year (Figure 1). For example, Africa's youth population<sup>2</sup> is projected to rise to three times its current level by the end of the century. Tanzania's youth population is projected to rise even faster, to 4.5 times its current level by that time. Meanwhile, as Figure 1 shows, the youth population in every other region of the developing world is expected to remain steady or peak between now and about 2030 and then begin a steady decline. In all these other regions outside Africa, youth populations at the end of this century are projected to be substantially below those of today. Africa's picture is starkly more concerning than what is seen anywhere else in the world, and Tanzania's is even more challenging than what is seen broadly in Africa.

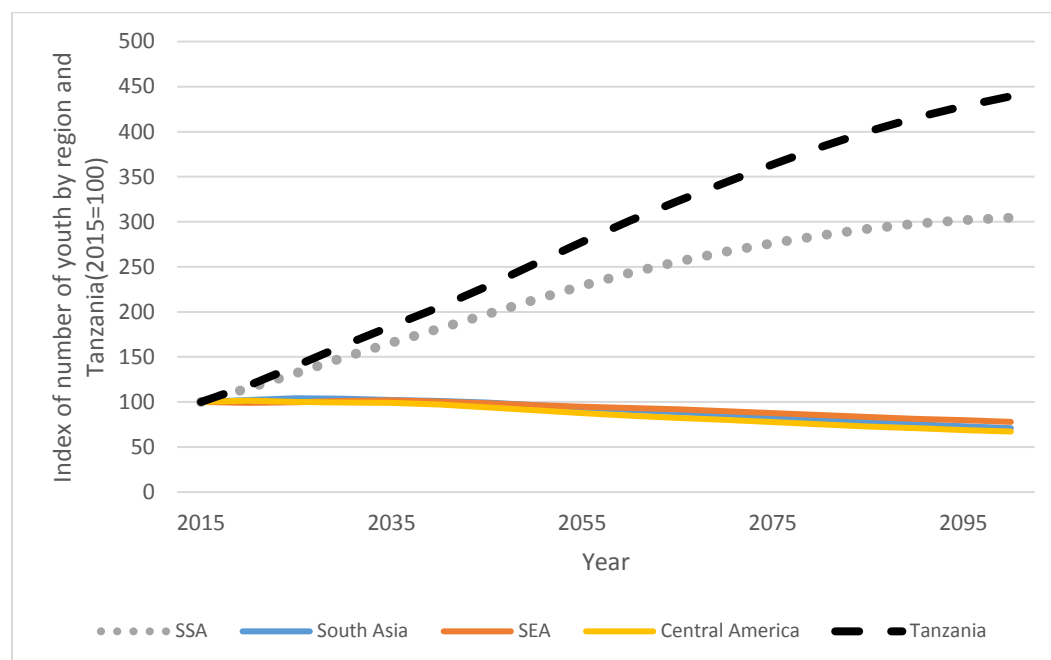
Another important reason for the focus on youth is the extremely rapid pace of change in the global economy. Rising urbanization and incomes are driving profound changes in the structure of economies, changing the relative importance—and location of opportunity—between rural and urban areas, and between farm- and off-farm activities. Meanwhile, technological change, and especially the digital revolution and its impact on automation, is driving additional—and still poorly understood—changes in the demand for labor and in the kinds of skills that are needed if one is to be remuneratively employed. This pace of change is creating anxiety and uncertainty broadly within society about how to adapt to the changes, and concern about how to properly prepare youth for this new world. It is also the case that, to an unprecedented degree, youth in low income countries are aware of these global changes (again largely due to digital communication technologies), are influenced in their values and aspirations by them, and are also either directly or indirectly impacted by the changes in terms of the economic opportunities that will be available to them.

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<sup>2</sup> In this policy brief we adopt the standard United Nations definition of youth as those 15-24 years old. We will also use “Africa” to refer to Sub-Saharan Africa throughout.



**Figure 1: Index of projected number of youth (15-24 years) in working age population, Tanzania compared to Africa, South Asia, Southeast Asia and Central America (2015=100)**



Source: United Nations Population Division, *World Population Prospects 2017*, total population by broad age group

The main purpose of this report is to better orient efforts at enhancing youth employment by placing the challenge in the context of these broad forces of change, understanding Tanzania’s current situation and future outlook, and reviewing the best current evidence to recommend potential programmatic approaches to expand youth economic opportunities in Tanzania. In the next section we explore in more detail the forces of change discussed above. We then lay out what is known about the ways in which youth currently engage in the economy, and how this is likely to change over the next five to 10 years, based on projected rates of urbanization and income growth, and the effects that these forces typically have on the location of opportunity in an economy. Next, we consider what is currently known about youth policy and programs in the country, before reviewing recent assessments of empirical evidence (from Tanzania and beyond) on what works in youth employment programs. Finally, we review Tanzania’s policy landscape for youth employment and private sector perspectives on it, before closing with conclusions on future priorities.

*Data and methods.* The paper is based on three sources of data and information. First, we use secondary data from the United Nations Population Division on past and projected populations by age group at country level, together with World Bank data on past total fertility rates, to characterize Tanzania’s demographic transition and place it in a comparative context with other regions of the world. Second, we use detailed household level data from Tanzania’s 2010/11 National Panel Survey to characterize the current structure of youth engagement with the economy. The National Panel Survey is a nationally representative household survey carried out by the

National Bureau of Statistics on a periodic basis as part of the country’s monitoring of poverty rates. In addition to its core module on household consumption and expenditure, the survey data set contains detailed data on household structure and on the engagement of household members in economic activities. Third, we draw from Chapter 3 of Allen et. al. (2016) to discuss how this structure of economic engagement is likely to change in the country over the next five years.

Finally, private sector perspectives on the challenges and opportunities for youth employment come from two sets of focus group interviews with small- and some medium-scale enterprise (SME) owners, primarily in the area of food processing, located in and around Morogoro and Pwani.<sup>3</sup> These business owners were interviewed regarding the kinds of skills they need in employees, their challenges in finding and obtaining employees, their perspectives on government programs in the area of youth development, and priorities for promoting entrepreneurship.

## **2.0 The setting for youth employment in Tanzania**

### **2.1 Tanzania’s slow demographic transition**

Tanzania has an especially challenging youth employment situation due to its slow *demographic transition*. This term refers to a country’s transition from high birth and death rates to lower birth and death rates over the course of economic development. The robust pattern seen across many countries over time is first a decline in the death rate with little change in birth rates. This results in a period of rapid rise in population, which is typically followed, after a lag, by a rapid decline in the birth rate. This declining birth rate eventually leads to a steady decline in the rate of population growth and to reductions in the share of youth in the total population<sup>4</sup>.

Every area of the world – including Africa - is now seeing a declining share of youth in the population (Figure 2). However, progress in Sub-Saharan Africa (SSA) generally and Tanzania in particular has been extremely slow. These areas looked much like the rest of the low income areas of the world until about 1980, when South Asia and Southeast Asia began to see sharp declines in the share of youth in the working age population. Central America (the poorest area of Latin America) then began to see similar rapid declines in the late 1990s. Since that time, as Africa—and even more so Tanzania—showed very slow declines in the youth share, a wide gap has opened between SSA and the rest of the developing world, and Tanzania has lagged behind even the very slow SSA average.

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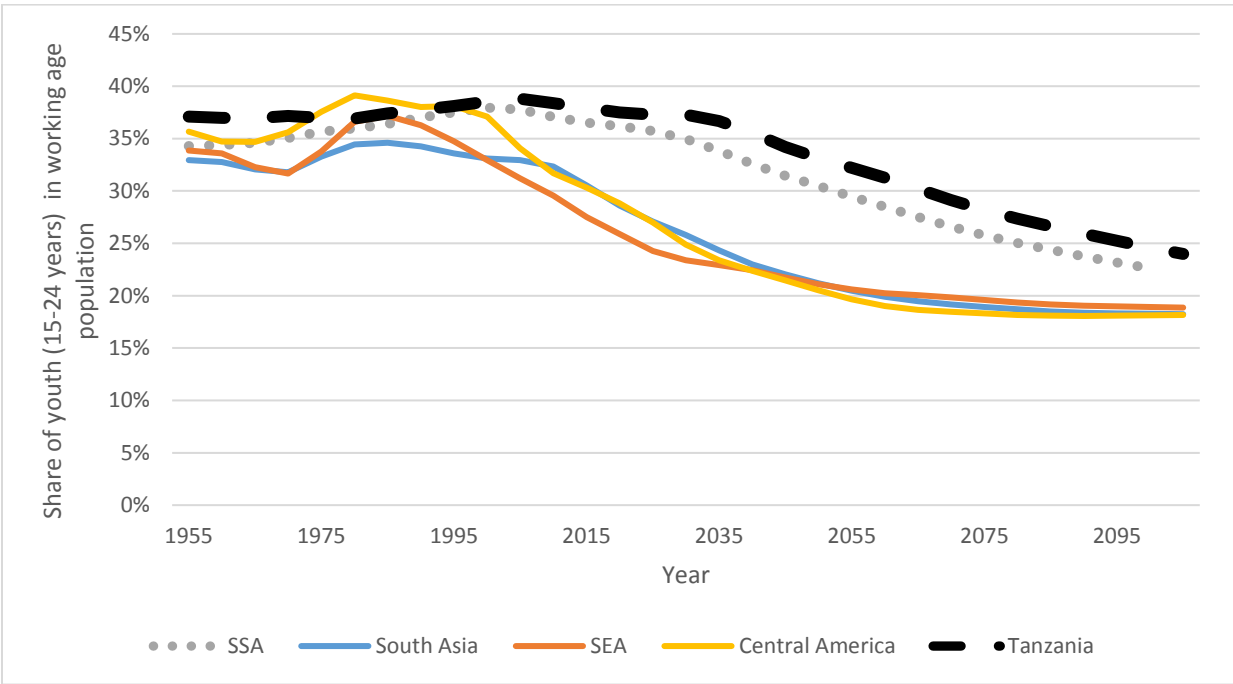
<sup>3</sup> The discussions with SME owners were part of focus group discussions held in November 2017 with youth and private sector representatives in Morogoro and Pwani Regions. Focus groups were composed of separate groups of young men and women, and parallel groups of selected private sector representatives from the poultry, aquaculture, cassava, horticulture and oilseed value chains. During the day-long discussions, participants were asked to consider opportunities and constraints for a target group of economically disadvantaged, out-of-school young men and women between the ages of 18 and 24. Each discussion was structured around a common set of questions/issues related to current and expected employment and entrepreneurial opportunities, and constraints to youth employment along the key value chains (from production to retail).

<sup>4</sup> The demographic transition is a firmly established concept in population studies, dating to at least as far back as 1920 and the American demographer Warren Thompson. A useful “modern” reference applied to technological change and rural areas is Boserup (1981).



This gap is directly attributable to Tanzania’s stubbornly high fertility rate (Figure 3). In 1960 the country had fertility rates similar to Cambodia in Southeast Asia and Bangladesh in South Asia, and well below Honduras in Central America. Since the late 1970s, however, a large gap has opened up: total fertility rates in Tanzania have fallen steadily since this time, but they have done so far more slowly than in these other three countries. The result of these patterns is that, even though the share of youth in the labor force is falling in Tanzania, it is doing so slowly, resulting in very large increases in the actual numbers of youth and enormous challenges in putting them to work.

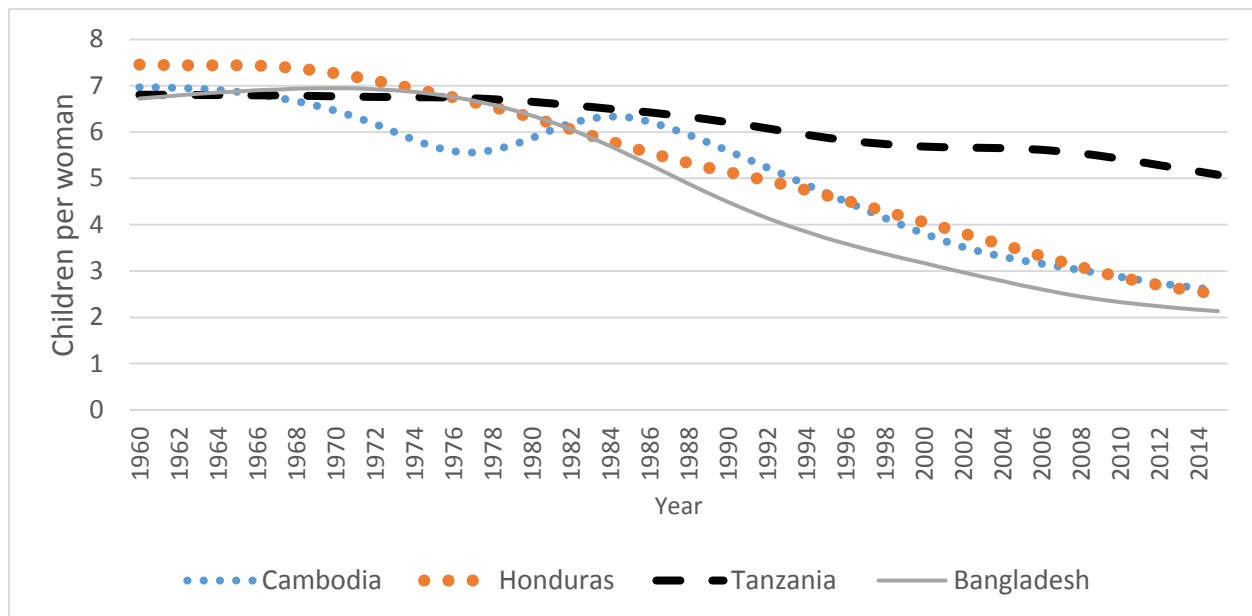
**Figure 2: Share of youth (15-24 years) in working age population, Tanzania compared to Africa, South Asia, Southeast Asia and Central America (estimates from 1950 and projections to 2100)**



Source: United Nations Population Division, *World Population Prospects 2017*, total population by broad age group



**Figure 3. Total fertility rate (children per woman) in Tanzania compared to Cambodia, Honduras, and Bangladesh (1960 – 2015)**



Source: United Nations Population Division, *World Population Prospects 2017*, total population by broad age group

## 2.2 Global dynamics of change affecting Tanzania

Two broad processes of change need to be kept in mind when thinking about employment prospects for today’s youth in Tanzania. The first is the widely understood process of structural and rural transformation, and the diet transformation linked to these (Timmer, 2014). The second is the ongoing process of globalization, driven now by unparalleled rates of change in digital technology.

The structural and rural transformation of economies involves the progressive movement of economic activity off the farm and into other areas of the economy as incomes rise. This movement is a natural and necessary result of rising productivity, for a very simple reason: since human beings have biological limits to how much food they are able to eat, the economy must increasingly produce goods and services beyond “just food” – beyond just farm production – if productivity and incomes are to continue rising past a basic level. First, the economy must add more and more value to food after the farm through transport (due to generally longer supply chains as larger cities reach further into rural areas to ensure their supply), cooling (for the more perishable foods, of which the consumption rises with income), processing, packaging and advertising, and preparation for consumption outside the home (embodied services whose demand also rises rapidly with income). These changes in value added reflect the diet transformation that unfolds as households with higher incomes demand a different and wider array of foods, and demand more convenience, safety, and perceived quality in those foods. As more and more value added is added to food off



the farm, the second dynamic is that the economy must increasingly produce goods and services that have no relation to food.

The employment corollary of this pattern is that work moves increasingly off the farm into rural non-farm employment (RNFE) and urban employment as income grows, satisfying increasingly prosperous consumers' demand for value added food and for non-food goods and services.

The second broad pattern of change is the digital revolution, and its contribution to intelligent automation, to the resulting global decline in manufacturing employment, and to the globalization of information, aspirations, and values especially among the young. Intelligent automation refers to the combination of artificial intelligence – based on digital processing technology, various types of “big data,” and increasingly sophisticated data processing algorithms – and automation. The result is machines that can increasingly carry out tasks previously thought the domain only of human beings, by monitoring and learning from their performance, and making decisions about behavioral changes to increase that performance. “Big data” is a broad term referring to the explosive growth in data from digital and cellular devices regarding the behavior of human systems and of individual human beings within them. The massive, and massively growing, size of such data together with ever faster processing speeds is a main driver of the rise of artificial intelligence.

The global decline in formal manufacturing employment that has resulted from these technological changes is by now a well-known story in western industrialized countries. Initially, this decline was related to the off-shoring of manufacturing activities to developing countries with much lower costs of labor. East Asia in general, and some areas of Southeast Asia, benefited greatly from this process and saw very rapid growth in manufacturing that was export-oriented, labor intensive, and that therefore absorbed large amounts of labor coming off the farm. However, even in these areas, employment in manufacturing has peaked and begun already to fall in many countries. What's more, this employment peaked at levels well below those seen by OECD countries when they were in the midst of their industrialization, in the 1950s and 1960s (Rodrik, 2015). Africa, having started to industrialize far later, is likely to see even less growth in manufacturing employment, and to see that employment peak earlier – at much lower national per capita income levels – than Asia. The implications for youth opportunity are profound.

In the typical progression, automation starts with routine manual activities such as assembly line manufacturing, which explains the decline in manufacturing employment even as total manufacturing output rises. From there, it progresses into routine services such as sales clerks and office work. With the rise in artificial intelligence (AI) and thus the expansion of intelligent automation, great concern has arisen that automation could push further into more complex services than heretofore were the domain only of human beings. As one example, the application of AI to the Google Translate algorithm starting about two years ago has resulted in a dramatic improvement in the quality of translations in nearly all widely spoken languages, making human translation less necessary. As a second example, IBM (2017) estimates that, by 2020, 85% of all customer service for major corporations will be handled without a human being involved, and customer problems will be solved more quickly and at lower cost. As a result, the smaller number of call center employees that remain will need to progress from routine support requests to assisting customers with more complex tasks. The implications for one important segment of modern sector employment in some developing countries – customer service call centers – is clear (Fersht, 2016). Similar implications can be seen for food manufacturing, as global and even large local companies increasingly automate their production.



Two key points need to be considered when thinking about the implications of these dynamics for Africa and for Tanzania. The first is that global trade spreads these impacts well beyond the places where they are applied. For example, if smart factories in the United States—and increasingly in China—reduce labor to a minimum while also reducing costs of production, that reduces incentives for firms to hire workers anywhere in the world, including in low-income countries. As a result, the possibility, for example, of garment factories moving most of their operations to Africa in search of lower cost labor, as labor costs eventually rise in Asia, is reduced. At a minimum, the factories that do move to Africa will need far less labor than the same factories did, even in recent years, in Asia. Similar dynamics can be noted for a wide range of products, including the modern processed food products that are increasingly penetrating the diets of Tanzanians and other Africans. To take a simple example, modern maize milling firms, or edible oil refining firms, use far less labor per unit of output than they did even 10 years ago. Large-scale poultry farms—poultry is a rapidly growing market across Africa—are also seeking every opportunity to reduce their labor bills.<sup>5</sup>

The second point is that reduced demand for manufacturing labor in these sectors of economic activity makes the employment challenge more difficult throughout an economy like Tanzania's. This is because, today, youth who might otherwise be able to obtain such work find fewer opportunities, and must therefore compete in perhaps more traditional and more purely local labor markets. They will do so with other youth who may bring fewer skills to the challenge, and who in the past would not have faced so much competition. These less skilled or less connected youth are thus left with fewer opportunities that they can take advantage of. The result, seen across Africa and shown for Tanzania in Table 1, is that informal, self-employed “services” —manifested in the very large number of informal small-scale traders seen throughout African cities and towns—has come to dominate employment off the farm, with negative implications for earnings and job security.

This informal employment is directly related to the low quality of jobs that so many youth currently obtain. Much of this “employment” is nothing more than tiny, single-person activities buying and selling food or other goods at retail in urban and peri-urban areas. It goes without saying that these individuals have no social welfare benefits, such as medical insurance, through such work. Among those who manage to be hired into wage employment, the majority are engaged in “casual” wage work that is intermittent, unpredictable, and also does not provide social welfare benefits. Only a small minority (see below) is able to obtain more stable, reliable wage employment that includes some kind of social benefit beyond a wage.

### **3.0 Current youth engagement in the economy**

Table 1 shows the distribution of youth employment in Tanzania's economy, based on analysis of the 2010/11 National Panel Survey. Numbers in the table show the share of all “full-time equivalent” labor (FTE) that is devoted to different sectors of the economy, broken by the kind of

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<sup>5</sup> Personal interview with director of Silverlands poultry operation in Iringa, Tanzania, July 2017.



labor in each<sup>6</sup>. Unemployed youth, and youth who are simply not in the job market, are included. Three points stand out. First, the single largest share is youth who are not engaged in the economy for pay. These will include youth who may provide some work on their parents’ farm but who are not paid for it. This is not a surprise, and would be lower among those 25 to 30 years of age, who are sometimes also considered part of the youth population. Second, among those that are economically active, self-employment is the largest occupation: 79% (30/38) of all youth employment within the agrifood system (AFS)<sup>7</sup>, and 29% (4/14) of work outside the AFS, is self-employment. Third, among those youth that are employed, 23% have formal wage employment<sup>8</sup>. This shows that over three-quarters of all youth employment is in the informal sector – a direct result of the difficulty of growing labor-intensive formal manufacturing in today’s economy.

**Table 1: Structure of youth (15-24) employment in Tanzania, by sector and type of employment (Tanzania; FTE basis)**

Type of employment	AFS	Non-AFS	Unemployed	Economically inactive	Total
----- Share -----					
Casual wage	0.03	0.03	---	---	0.06
Formal wage	0.05	0.07	---	---	0.12
Self employed	0.30	0.04	---	---	0.33
Total	0.38	0.14	0.03	0.45	1.00

Source: Author calculations from the 2010/11 National Panel Survey

<sup>6</sup> Full-time equivalent labor is based on the amount of time put into a job over the past year as a ratio of a “full-time” job of 40 hours per week. Thus, someone who worked in a particular undertaking for 20 hours per week throughout the past year, allocated one-half of an FTE to that activity. The calculations include all economic activities that someone may have been involved in, e.g. a 22 year old that farms and also runs a small carpentry business when not working in the fields.

<sup>7</sup> We define the AFS as all people, institutions, and activities involved in the farm-to-fork provision of food to consumers. This includes input and service supply to farms, farm production, and all post-farm activities (transport, wholesaling, processing, packaging, retailing, public regulatory actions, and others) needed to provide consumers with their food.

<sup>8</sup> Formal wage employment, contrasted with informal, is typically thought of as employment that pays regular wages (e.g. regular weekly or monthly pay) and that also includes some level of social welfare benefits such as health insurance. Because data on social welfare benefits are often lacking, these computations, and what we do here, typically focus on whether an individual is paid on a regular basis. These figures should therefore be seen as an upper limit on the level of real formal wage employment.

Table 2 breaks open this self-employment box and compares youth who are self-employed to the older cohort of 25- to 40-year-olds who are also self-employed. Two key points stand out from this table. First, about three-quarters of all youth self-employment is in farming. Second, this share falls sharply among 25- to 40-year-olds, to 47%. This pattern suggests the likelihood that rural youth, as they start out, focus on the sector that they know and where they might be able to get resources—farming on land provided by parents or other relatives – but that many of them move on to other sectors of the economy as they get older, learn more about their opportunities, and perhaps save some money to start a business. 53% of all FTE labor (computed as above) by 25- to 40-year-olds takes place off the farm.

**Table 2: Share of all self-employment devoted to farming, non-farm AFS, and outside the AFS, among youth and 25- to 40-year-olds (Tanzania)**

Segment of the economy	Age group	
	15-24	25-40
	----- Share -----	
Farming	0.76	0.47
Non-farm AFS	0.13	0.27
Outside AFS	0.12	0.26

Source: Author calculations from the 2010/11 National Panel Survey

Our final table in this section presents employment within segments of the AFS and the non-AFS, and compares youth to those aged 25 to 40 years. This table highlights two points. First, we see that the post-farm segment of the AFS—broken down here as marketing and transport, food manufacturing, and food preparation for consumption out of the home—accounts for 17% of all labor time of the youth, and 26% of the older age group. Again, this reflects the point, noted above in Table 2, of youth starting in farming then some moving to other activities in succeeding years. Second, services, and not manufacturing, account for the vast majority of non-farm labor. Services in Table 3 include marketing and transport and food preparation within the FAS, and work in government and “private services” outside the AFS. These “private services” include all trading activities, those working in non-AFS transport, and other providers of services. Together, these activities account for 39% of all youth labor, 56% of all labor for the older cohort, and 76% and 80%, respectively, of the non-farm labor of each of these groups.

We note that, compared to males, females are overall more likely to be engaged in farming, are about two-and-a-half times more likely to engage in food manufacturing and food preparation when they do work off the farm, and are less likely to be engaged in activity outside of the AFS. Food manufacturing and food preparation, as two areas that will show strong employment growth due to the transformations discussed above, may thus offer strong employment opportunities for young women seeking employment beyond the farm.



**Table 3: Distribution of labor across AFS and non-AFS, by segment of each (Tanzanian employed youth and those aged 25-40)**

Sector/segment	15-24	25-40
	----- Share -----	
<i>AFS</i>	0.73	0.61
Own Farming	0.49	0.30
Farm Labor	0.07	0.04
Food Mfg	0.02	0.04
Market & Transport	0.12	0.18
Food Prep	0.03	0.04
<i>Non-AFS</i>	0.27	0.39
Manufacturing	0.02	0.04
Other Industry	0.03	0.05
Government	0.04	0.06
Private services	0.18	0.24

Source: Author calculations from the 2010/11 National Panel Survey

#### **4.0 How are youth opportunities changing in Tanzania?**

Tanzania’s economy and its agrifood system are well into the structural, rural, and diet transformations discussed above. As a result, employment growth in the agrifood system will be focused in two areas: in smallholder farming that is strongly linked to markets, and in value-added activities off the farm such as transport, wholesaling, processing and packaging, and retail.

In their 2016 analysis of the implications of agrifood system transformation for employment in four African countries, Allen et. al. (2016) classified food categories into four groups in terms of their capacity to contribute to employment growth:

- “Best bets”: Categories expected to show fast growth from a substantial base, resulting in the largest contribution to total growth in demand;
- “The steady set”: Categories with a large current footprint and with moderate expectations for growth, resulting in a meaningful, but not the largest, contribution to total demand growth;

- “Promising but small”: Categories showing fast growth from a small base, meaning that they would make a moderate – but rapidly growing – contribution to total demand growth; and
- “The least promising”: Categories expected to show slow growth and a small contribution to total demand growth.

Table 4 summarizes the classifications for Tanzania. Food away from home (FAFH) and the meat sector emerge as major opportunities for growth. FAFH already shows a high share of consumer spending (20% overall, higher in urban areas) and also attracts substantially more spending as consumer incomes rise<sup>9</sup>. Two features of this sector make it especially attractive. First, much of its employment is informal and small-scale, meaning that it provides ample opportunities for employment while also generating higher wages or earnings than many other informal activities.

**Table 4: Classification of food categories in Tanzania by their expected contribution to growth in demand**

Rating	Food Category	Specific Food Items	Notes
Best Bets	Food away from home (FAFH)	A wide range, with greatest contribution from bread, rice, and other grains; fruit; drinks (alcoholic and non-alcoholic); and sugar	Prepared FAFH captures a high share of consumer food expenditure in Tanzania—20% across the entire country—is growing the most rapidly of any food sector, draws on a wide range of mostly locally produced foods, and offers attractive returns for those who can get into the sector.
	Moderately processed perishable foods	Mostly meats, and mostly poultry within the meat category	Poultry is a very rapidly growing sector with strong growth linkages into coarse grains, fish or soya, and other products for animal feed; knowledgeable observers also see very rapid growth, though from a lower base, in demand for beef and other meat.
The Steady Set	Unprocessed perishable foods	Fresh vegetables; fresh fish; fresh fruit; and fresh roots and tubers	Fresh vegetables feature strong growth in local demand though not as high as FAFH and meats. It also has great potential for regional trade; exports to high income countries are also growing and could make an important contribution to overall growth; fruit (and perhaps fish) has higher growth potential than the other items, but starts from a lower base.

<sup>9</sup> Expenditure elasticities of demand for this category are well above 1.0, meaning that demand for them grows more rapidly than overall income growth.



	Moderately processed non-perishable foods	Rice; sugar; maize meal and other meals	These are traditional sectors that are currently large and continue to offer reasonable, though slower, prospects for growth in demand and employment.
Promising though small	Highly processed non-perishable foods	Vegetable oil; drinks	The sunflower sector is showing extremely rapid growth at both farm and processing levels; composed of many SMEs in the processing sector; import dependence in both sectors is high, providing even more rapid growth potential if growing local production can compete effectively with imports.
	Highly processed perishable foods	Bread and other bakery products; dairy products	Though wheat for bakery products is largely imported, it features much value added from milling, baking, and retail; Dairy has an active regional market (Tanzania, Uganda, Kenya).
Least promising	Unprocessed non-perishable foods	Unprocessed coarse grains and pulses	

Source: Adapted from Tschirley et. al. (2016), Table 3.11

Within the meat sector, poultry captures the largest share of current spending, is growing very rapidly, and lends itself to the kind of small- and medium-scale production that generates a lot of employment. Because poultry production requires animal feed, this sector also features many “growth linkages”<sup>10</sup> into the coarse grains sector. It thus helps support demand for these grains from local farmers, most of whom will be smallholders. Beef expenditure shares computed from the National Panel Survey are low. The beef sector, however, has a high income elasticity of demand, i.e., will continue to attract additional food spending as incomes rise. Key informant interviews suggest that very meaningful levels of investment are beginning to move into the sector to supply Dar es Salaam and other urban markets.

The “steady set” category includes unprocessed perishables and moderately processed non-perishables. The former is composed of fresh fruits and vegetables, some fresh roots and tubers (mostly cassava) and fresh fish. Fresh vegetables are expected to show strong growth in local demand, though this growth is not expected to be as high as FAFH and meats. Fresh vegetables also have great potential for regional trade; exports to high income countries are also growing and could make an important contribution to overall growth. Fruit (and perhaps fish) has higher growth

<sup>10</sup> The term “growth linkages” refers to growth in one sector or area that comes as a result of growth in another. In the poultry example, consumer demand for poultry results not just in an increase in poultry production, but also an increase in demand for maize grain, soybeans, and other inputs that needed to sustain the growth in poultry production. Thus, growth in the maize sector is linked to growth in the poultry sector.





potential than the other items, but because total current consumer expenditure on fruit is substantially lower than it is for vegetables, it will take some time to make a large contribution to the overall growth in demand for food.

Moderately processed non-perishables include rice, sugar, and milled grains. The latter is primarily maize meal, but includes other milled grains and so-called *lishe* products, which feature a mix of grains and sometimes other commodities (dried vegetables, dried fish) and are produced primarily for preparation as a breakfast porridge. These are traditional sectors that are currently large, and continue to offer reasonable (not as fast as other sectors) prospects for growth in demand and employment. The rice and milled grain sectors feature a large number of micro- and small-, and some medium-scale enterprises. Such enterprises generate much more employment per unit of output than do large companies (Snyder and Tschirley, 2017). For example, Snyder and Tschirley broke all grain millers in Dar es Salaam into five groups of equal size, ordered by the size of their business (based on total sales). They found that the group with the second smallest operations employed more than 20 times more labor per unit of output than did the largest operations.<sup>11</sup>

Food items that are currently smaller in their demand footprint but that are growing rapidly (“small but promising”) are highly processed foods, both non-perishables and perishables. The former include vegetable oils and drinks, while the latter are primarily bread and other bakery products, and dairy products. Bread and bakery products depend on imported wheat. However, whole grain wheat requires a great deal of value addition—and labor—to be made available to consumers as bread, pastries, and other such products. This value addition requires labor. The greatest amount of employment in this sector will be *after* milling, since wheat milling is all large-scale, capital intensive, and thus provides relatively little employment. Transport, baking, and retailing are all smaller scale and will provide many more employment opportunities.

The vegetable oils sector features one of the most rapidly growing value chains in the country: sunflower is now produced by perhaps 2 million smallholder farmers (Dalberg, 2018) and includes roughly 2,000 mostly small-scale oilseed processors (United Republic of Tanzania, 2016) that offer far higher employment per unit of output than do the large-scale processors who primarily handle imported crude palm oil. Large-scale investment is now also being attracted into sunflower, but the small- and medium-scale sector is likely to remain vibrant for many years, even as the large-scale sector continues to grow. Because Tanzania currently relies on imports for at least 60% of its consumption, the growth prospects for this sector are extremely strong, depending only on efficiency and ability to distribute product across the country. Employment growth is likely to remain strong over much of the next decade.

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<sup>11</sup> We reference the group of second-smallest operators because many of the smallest are not “going concerns” that will survive over time, while many of the second group appear to be profitable and thus potentially able to remain in the market.



## 5.0 Recent evidence on what works

The forces of change discussed at the beginning of this paper—things like intelligent automation—may seem remote from Tanzania’s current reality. They are, however, already directly affecting Tanzanian employment and opportunities for youth by reducing the demand for labor in manufacturing and more generally in the formal sector of the economy. This is a fundamental fact, a tide that Tanzanian and African economies in general must swim against.

That said, there is no question that formal sector employment could be substantially increased in Tanzania. A broad, long-term solution to the employment challenge requires that Tanzania accelerate its demographic transition, maintain a macro-economic and trade policy conducive to growth, and invest in the hard and soft infrastructure (including improved primary and secondary education<sup>12</sup>) that are needed to spur local investment and drive economic growth.

Within a macroeconomic and investment framework that promotes economic growth, youth-specific policies and programs may be able to make meaningful contributions to preparing youths for better jobs and linking them to employers interested in hiring them. If these programs succeed in improving youth skills and creating a better match with employers, then the efforts can help drive further growth, thus completing the circle and contributing to further employment gain.

The challenge of doing this, however, is great, and two recent reviews of empirical evidence suggest that most programs have little *net* effect on youth employment. McKenzie (2017) concludes that “many active labor market policies are much less effective than policymakers typically assume. Many of these evaluations find no significant impacts on either employment or earning.” Fox and Kaul (2017) reach similar conclusions, stating that “the evidence reviewed here casts serious doubt on the efficacy and value of training interventions to help youth enter formal wage employment. The case is stronger for interventions that speed the transition to self-employment in farming or non-farm household enterprises.” Note that the efficacy may have nothing to do with the quality of training itself, but instead with the limited availability of formal sector jobs and the resulting low placement of graduates into such employment. Fox and Kaul raise special concerns about *displacement*, which happens when a trained youth obtains a job at the expense of another, likely untrained, youth, resulting in no net increase in employment. They find that most studies do not properly control for displacement and thus likely over-estimate any positive effects.

These reviews find suggestive positive evidence in three types of approaches. McKenzie finds that programs that help workers overcome *sectoral mismatches* and *spatial mismatches* can be effective. The former is when a potential worker does not have the skill set needed in a sector with rapidly growing demand; high quality training for that sector can be effective in raising incomes and placing workers, but are complex to run and require experienced providers and trainers. Spatial mismatches refer to workers not being in the location where their skills could be best used. Here,

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<sup>12</sup> Regarding education, Haji (2015) states, “It is clear that the vast majority of children are not learning in schools.” Filmer and Fox (2013) note that “learning in primary school is often minimal” and cite evidence that 43% of sixth-graders in Tanzania are at or below the “basic numeracy” level. 16 to 20 percent of teachers are absent on any given day in Tanzanian public schools. Such fundamental deficits must be addressed if youth employment – and broader economic performance – are to improve.



simple subsidies—small cash transfers, often unconditional—to facilitate internal migration have sometimes been found to have large effects.

Fox and Kaul find that assistance in transitioning to self-employment in farming or non-farm household enterprises is generally more effective than are programs targeting wage employment – largely because the demand side of formal wage employment is so limited, due to the widespread informality noted at the beginning of this paper. Addressing the economic constraints that hinder the growth of formal enterprises is needed if these kinds of programs are to find more success. Fox and Kaul also suggest that programs that develop “transferable social skills and integration” deserve further study. This finding echoes repeated references in our focus group discussions in Tanzania (see below) to the importance of “soft skills” —skill in relating to people, ability to take instruction and ability at the same time to see problems and take initiative to resolve them.<sup>13</sup>

## 6.0 Tanzania’s policy landscape

Interviews with policy makers and a review of the literature reveals a number of policies and initiatives specific to youth in Tanzania. Here we describe these programs and report feedback from focus groups of private sector business owners that were held in Morogoro and Pwani during November, 2017.

### 6.1 Review of policies and programs

A common feature of youth programs in Tanzania is the lack of detailed information about them, and a complete absence of assessment of impact. While reviews and assessments exist, they are almost entirely descriptive in nature, and do not provide a strong basis for evaluating whether a program has had any real impact on the ground. Here we mention each while reporting what was learned from a first round of interviews with policy makers, and with the focus group interviews conducted in Morogoro and Pwani. We note that the ILO of the UN is engaged with several of these initiatives, and also works to improve the evidence base through survey research. These include the School-to-Work Transition Survey in 2012, and the periodic Labour Demand Enterprise Survey to assess current and expected workforce needs of enterprises. ILO also ran the Decent Work program in Tanzania from 2011–2016, which coordinated 22 youth-related employment programs funded both bilaterally and multi-laterally (ILO, 2016).

The National Economic Empowerment Council (NEEC) manages 19 funds with a total value of Tsh 1.3 trillion. The National Youth Development Fund lies within NEEC, and is operated through the Prime Minister’s Office. Haji (2015) reports that the fund manages approximately \$18 million, primarily to provide credit (this approach is also confirmed by the NEEC’s official site, <http://www.uwezeshaji.go.tz/other-empowerment-funds>).

The National Strategy for Youth Involvement in Agriculture 2016–2021 aims to promote access to land, finance and inputs (including irrigation) for youth engagement in farming, while at the

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<sup>13</sup> Soft skills can in general be contrasted with so-called “hard skills,” which refer to technical knowledge and skill to carry out particular tasks. An example of the latter would be skills held by a mechanic, a plumber, an electrician, or a person in construction.



same time improving skills and promoting “decent work” in the agrifood system. It is coordinated by the Ministry of Agriculture but involves several ministries. Interviews with Ministry of Labour and Employment suggest that the strategy has met with limited success to date, due primarily to difficulties with land access for youth wishing to start out in farming.

Focus group participants spoke of a national requirement that 5% of locally generated revenues (at the level of Local Government Authorities (LGA)) must be spent on youth activities. It is not clear how much money this requirement generates, how it varies across LGAs, and what exactly the money is spent on.

Focus group participants also spoke of reserves of land at LGA level meant for use by youth. Interviews with the President’s Office Regional and Local Government suggested that 270,000 acres are held collectively across LGAs for this purpose. Focus group participants indicated that locally known youth groups are targeted for use of this land.

Several initiatives exist in the area of vocational and technical training, which is most relevant to youth compared to older workers. VETA is the Vocational Education and Training Agency, a semi-autonomous organization providing vocational training to youth. VETA has training centers in most regional capitals, and is funded by 1% of the 3% levy on all salaries paid by employers for the National Skills Development Program.

The Ministry of Agriculture runs 14 Ministry of Agriculture Training Institutes, or MATIs, located in six agro-ecological zones of the country. The thematic focus of the MATIs varies across the centers, from general agriculture to specific crops, to mechanization and irrigation. The focus of the training is on courses for agricultural officers, extension agents, farmers, and youth.

SIDO, the Small Industries Development Organization, lies within the Ministry of Trade and Industry. It has for many years provided technical training and some financial assistance to small enterprises in the country. It has also promoted “cluster” developments where basic infrastructure and energy access are provided for several small enterprises. SIDO regularly receives assistance for its programs from World Bank and other international organizations. Food processing has been an important area of assistance for SIDO.

## **6.2 Private sector perspectives**

Two sets of focus group interviews generated a consistent set of feedback regarding the kinds of skills needed, and the challenges faced, by small-scale enterprises operating in Tanzania’s agrifood system. First, soft skills were heavily emphasized in both groups. The entrepreneurs’ sense of the needed skills included the ability for youth to ask the needed questions—to fully understand the task at hand in order to carry it out appropriately, communicate clearly with the owner or manager and other employees, and to take initiative when needed. These were all considered the most important skills and often the most lacking among young employees.

Closely related to this, the interviewed entrepreneurs judged that social capital and social networks of trust were much more important than access to capital for starting and building a business, though youth insisted that lack of credit was, in fact, an important constraint. Credit was considered by these older participants to be a potentially useful complement to these more fundamental sets of social networks but in no way a replacement. Networking, and the building of soft skills in the midst of the building of networks, were thus considered key elements in any attempt to train youth for employment or for their own entrepreneurial activities. Highlighting this view, groups



indicated that the top action Tanzania’s training programs could take, within their entrepreneurship program, was to connect youth with SIDO, The National Youth Fund, nongovernmental organizations and other business organizations to acquire business support and knowledge.

Second, some hard skills were highly valued. Machine repair was considered a very valuable and scarce skill, with participants commenting on how far away one had to search for good mechanics. Packaging and logo design, together with computer skills, were also emphasized in both groups. This emphasis on logos and the building of brands is consistent with research in Tanzania showing the dramatic rise of branded products across a wide range of product categories (Snyder, 2018). Even very small enterprises make concerted efforts at branding, but often realize that they need assistance in doing this more professionally. Finally, participants noted a great lack of information and knowledge among potential entrepreneurs, and they stressed the need for training in how to develop a business plan and conduct market research as part of that process.

Third, land was generally not considered a major constraint to starting a farming business. Both groups indicated that land was easily available for rent, sometimes with a need for up-front payment (which could be a constraint), but also with frequent sharecropping arrangements that allow youth to pay only upon harvest and sale of their product. Few of the participants had made use of the LGA-level land holdings, as these are reserved for youth groups, not individuals<sup>14</sup>.

Fourth, firms were interested in practical mentorship for trainees, including internships. They emphasized the need for interactive learning on the job, not just classroom-based learning. This emphasis on practical learning in the midst of actual businesses is consistent with and reinforces the perceived need to help youth develop networks of social trust. One should note, however, that these small businesses would have few resources of their own to put behind an internship. Conditions of employment would have to be carefully worked out between program management and the participating firms.

Fifth, employment barriers for young women were a persistent theme. On the one hand, women are widely perceived by the firms to be more “honest” and also better at intricate work requiring fine motor skills. On the other hand, they were seen as unreliable for two reasons: they were seen as less independent from their parents and thus subject to quitting a job if their parents did not approve; and they may become pregnant, in which case none of the firms indicated a willingness to keep them on the job. Access to family planning services may have a very high payoff for young women in this context.

Finally, the groups emphasized that any program needs to ensure open recruiting of trainees, and that achieving this openness required active and knowledgeable use of social media.

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<sup>14</sup> We noted before that Ministry of Labour officials were of the opinion that land constraints were in fact an important constraint for youth. These diverging opinions may stem from variations over the country – land may be far less available in highly populated rural areas than in areas with lower densities – or from incomplete information among some observers. In general, we note the general finding across Africa that increasing population densities and longer life spans of parents are making it more difficult to youth to gain direct control/ownership of land for farming (White, 2012).



## 7.0 Conclusions and recommendations<sup>15</sup>

This paper has suggested that the exponentially accumulating technological change of the past several decades has profoundly changed the employment opportunities open to today's youth in Africa. Manufacturing employment, which in years past was an elevator out of poverty for many individuals and countries, will provide far fewer opportunities than in the past. Informal employment, already a defining feature of African economies, is likely to remain so for many years to come. Tanzania, as at best a nascent industrializer and undergoing a very slow demographic transition, is likely to face an especially hard road in promoting stable and remunerative employment for its burgeoning youth population.

With this backdrop in mind, we offer several suggestions for how Tanzania might proceed, and the challenges it will face. First, the most important thing that Tanzanian policy makers can do to improve youth employment prospects is to improve the macroeconomic and investment environment in the country. Without this pre-condition, investment in youth training is likely to have a very low payoff, as most youth will have to continue flowing into extremely small-scale and poorly remunerated self-employment on and off the farm.

Second, a major challenge will be raising the fiscal revenue needed to fund the investment in human capital, technology, infrastructure, and strong institutions that could ensure stronger growth that provides employment for these youth. High and persistent informality in the economies will make this difficult to do, since informal and self-employment is difficult to tax. In Tanzania's case, its large natural resource endowment (natural gas in the south and mineral resources in multiple areas of the country) means that companies exploiting these resources could be one important source of such revenue. Yet the country operates in a world market in all these resources, and so cannot push taxation too high without causing an outflow of investment in these sectors; exploitation of the country's gas reserves is already proceeding much more slowly than had been hoped (Reuters, 2018).

Third, because Tanzania's economy is small, regional trade and economic cooperation will be key to its chances for sustained growth. Such open regional trade is necessary for several reasons. First, it provides a larger market for local companies to grow and achieve economies of scale that can make them more competitive. Second, market demand in these economies is growing very rapidly, due to a combination of rapid urbanization (thus greater dependence on markets) and rapid per capita income growth. Given the current importance of agriculture and rural areas in the economy, significant shares of this growth will be linked to agriculture and broader agrifood systems including midstream and downstream elements. Table 4 discussed the particular value chains and agrifood system activities that are likely to offer most opportunities in Tanzania: food away from home; poultry and other meats and the feedgrains they will increasingly demand; fresh produce for urban markets; and, small now but growing very rapidly, the edible oil sector and especially sunflower processing. Finally, an attractive aspect of the domestic and regional markets is that they are based on rising but still low-income consumers that may be satisfied for some time with the quality that local producers can offer; put simply, most consumers in the region are unlikely to have such high quality demands that Tanzanian companies cannot meet them.

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<sup>15</sup> This section draws extensively on Tschirley and Reardon (2016).



To date, Tanzania's record on regional trade has not been encouraging, as it continues to impose ad hoc trade barriers that undermine the confidence of investors in their ability to operate in a regional market. A much more stable regional trade policy will be one important contribution the government of Tanzania could make to creating conditions for growth that favor youth employment.

Beyond this, perhaps the most important take away from this review is that training of youth in soft skills and assistance to help them broaden their social networks needs to be a key priority in any effort to improve youth employment outcomes. Training in some basic hard skills should be one important complement to such efforts. These could include machinery repair, use of computers for simple graphic design (advertising and branding), a range of basic construction and building repair skills, and safe and technically correct means of pesticide application, in order to be able to provide services to the growing number of commercial small- and medium-scale farmers demanding such services.<sup>16</sup> Support for internship and perhaps apprenticeship programs is one practical way to promote both sets of skills and the broadening of youth networks that is so important for their economic success. A key point here, emphasized also by the firms in the focus group interviews, is that small enterprises need help in hosting interns and apprentices – until these youth have learned the needed hard skills and developed their soft skills to fit into the firm and be productive, it can be very difficult for small enterprises to absorb the real costs of lodging and subsistence that the youth will require.

For the many youth that will still need to engage in self-employment, a second important complement to an approach based on soft skills and selected basic hard skills, is programs to promote access to resources: to land (noting that rental arrangements can play a major role even if land for purchase is more difficult to access) and to small amounts of credit that can make a big difference in their ability to grasp opportunities.

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<sup>16</sup> The first two in the list come from the focus groups; the third, on construction, is based on the fact that construction emerges as an important sector in household surveys that examine employment; the fourth on pesticide application draws on other research (Haggblade et al., 2018) on the rising use of plant protection chemicals in Africa.



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