

Youth



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► KEY MESSAGES

- **Africa's youth, including those yet to be born, will bear the costs of climate change in the coming decades,** since the worst effects are expected mostly in the second half of this century.
- **Although they are the most educated generation ever in Africa, there is not yet a significant level of engagement by the youth with the climate crisis,** partly because of the pressing nature of their immediate needs and aspirations for education and employment. Further, the youth in Africa are often excluded from community political activities and national leadership roles—the youngest continent has the oldest political leadership.
- **The youth in Africa are undergoing complex demographic and economic transitions, which now face headwinds from climate change.** Climate change could reverse progress made on improving employment for the youth and could also increase inequality by affecting agriculture in rural areas. The implications of climate change for other development processes like migration, education, and gender roles are all considerable.
- **Climate change is not only a threat to youth livelihoods and welfare 20+ years hence, but also a threat now,** owing to the investments needed in Africa to avoid the weather effects that are starting to creep in. Not adapting could lead to major welfare declines down the road.
- **African countries can avoid some of the worst effects of climate change on the youth by taking adaptation measures now.** But these will be costly investments, both in terms of funds spent and opportunity costs. Yet not adapting is not an option. It is for the political leadership to set the right priorities in this process with youth engagement.
- **The youth need to engage politically and socially around them within national policy processes to a much greater degree, for it is they who have the greatest stake in the outcomes.** Including and encouraging youth participation in decision-making related to climate change is critical to making sure that choices, investments, and interventions have their support and are responsive to needs.



My country is one of those heavily affected by climate change, as it is an arid country with low and erratic rainfall, high temperatures, very limited surface water, and an increased frequency of extreme weather conditions such as droughts and floods (...) it is an area where our entrepreneurial, tech-savvy youth can contribute by developing innovative solutions.”

H.E. President Masisi of Botswana
Leader's Dialogue on the Africa Covid-Climate Emergency,
April, 2021

INTRODUCTION

As global youth protests over the last five years denouncing the lack of preventative action by the largest greenhouse gas emitters have shown, climate change is fundamentally a youth issue. Nowhere is this truer than in Africa, which is now and for the foreseeable future the region with the largest youth population in the world, and simultaneously the region expected to suffer the most from climate change impacts despite being the lowest emitter of greenhouse gases. Africa's youth, including those not yet born, will bear the costs of the emissions of previous generations in countries that now enjoy an exponentially higher standard of living. This global income and welfare gap is expected to persist throughout the 21st century, raising issues of both cross-country and intergenerational economic justice.

The economic effects of climate change in Africa are expected to be substantial. Without actions to reduce emissions in rich countries and to adapt development infrastructure and policies in Africa, declines in GDP over baseline of up to 30 percent are predicted (see Macroeconomics and Climate Adaptation chapter). The worst effects are expected mostly in the second half of this century. Some of these effects can, and should, be mitigated through adaptive investments commencing now and continuing through the century. However, these investments have their own costs, including opportunity costs in terms of alternative growth and development-inducing investments. This prioritization problem raises the stakes for Africa's development policy choices over the next decade.

Africa's young population—often referred to as “the youth bulge”—has been a concern of African policymakers and stakeholders for some time, and is characterized as both a crisis and an opportunity.¹ Much of the discussion on youth-specific issues in Africa has focused on creating better employment opportunities, both for instrumental reasons—because this is necessary for economic transformation, poverty reduction, and possibly to realize a demographic dividend—and for intrinsic reasons—to help youth transition to economic independence from their parents, become empowered, and realize their full potential. Partly because they are the most educated generation ever in Africa, youth have high aspirations for economic

empowerment and employment. However, African economies have been unable to fully deliver on these aspirations, leading to a major aspirations-attainment gap.² The aspirations gap seems to explain the positive correlation between education and employment in Africa today. Many politicians worry that this aspirations gap could lead to political instability, although thus far the correlation between youth unemployment and conflict is very low.³

The youth employment challenge will only worsen as climate change advances. Overall, most employment opportunities in Africa are found in the informal sector—household farms and firms. This will only change as economies transform, a process which climate change will negatively affect without adaptation investments. The majority of Africa's youth today live in rural areas and engage part- or full-time in agriculture, a sector that will be hit particularly hard by the effects of climate change. There will be less rainfall in many areas that currently rely on rainfed agriculture and more rainfall leading to flooding in others (see Agriculture and Food Systems chapter); more weather variability impacting on-farm productivity and incomes; more heat stress affecting the whole agri-food system; and the need to constantly refresh technology to adapt to changing weather conditions. Africa is urbanizing because of natural population growth in urban areas as well as migration, and urban youth livelihoods will be affected as well through the effects of more extreme weather on their places of work (which are often their homes) and employment opportunities.

The youth and climate change nexus cuts across a range of development issues not limited to employment. For example, the youth—especially young males—play a big role in urbanization trends as they are most likely to migrate from rural areas or between urban areas. Climate change could accelerate this trend, even as urban areas suffer as well, trapping the youth in substandard living conditions (slums) and poverty. The youth are a vital part of the informal social safety net in Africa. Although the youth are only starting to develop their livelihood patterns, in the absence of any form of social safety net many youths have to contribute financially to support younger siblings, and sometimes parents. Negative effects of climate change on their employment and earnings opportunities will have cross-generational

implications. Young women in Africa devote many hours to unpaid work supporting families—their own nuclear family and their extended family—as caregivers and through household maintenance. This pattern begins early. Teenaged girls report doing much more housework than men, and one in ten African women aged 20–24 had at least one child by age 18.⁴ Climate change could increase this burden by reducing infrastructure services, including access to safe water—already a challenge in rural areas. The youth in Africa are also often excluded from community political activities and national leadership roles—the youngest continent has the oldest political leadership.⁵ The potential for youth collective action, protest, and engagement in civil conflict is a threat that lurks underneath the surface of political discussions and has inspired authoritarian actions throughout the region, often snuffing out the potential for an increased voice for the youth in key decisions around climate change adaptation investments that will affect their future.

This chapter reviews the key interactions between the youth demographics of Africa with emphasis on sub-Saharan Africa (SSA), the region's economic development progress and prospects (especially the prospects for higher earnings and more secure employment for youth), youth engagement and empowerment, and how climate change adaptation policies and investments interact with these trends.

We find that the effects of climate change, which are already being felt as more extreme weather events, are likely to negatively affect the livelihoods and welfare of rural and urban youth in several ways. In rural areas, declines in agricultural productivity and soil degradation will not only affect those engaged in agriculture, but it will also be felt all the way down the rural value chain. Urban youth, whose share of the youth population is increasing owing to migration, will also be negatively affected, but the trajectory could be slower.

For those youth who live in slums (which may occur following migration), the rainfall increases projected for the middle of Africa would soon negatively affect their living and working conditions, as both activities often use the same location (see the Present and Projected Climate Risks chapter). Youth in urban slums in drier areas will have to devote more time and money to procuring water, a burden which falls mostly on women. Meanwhile, the negative effects of climate change in rural areas could increase youth migration to larger urban areas, increasing the share of the urban population in slums.

If adaptation measures are taken now, the projected negative effects on youth in 20–30 years could be reduced. This would benefit African youth during their peak earning years and beyond. However, changing the trajectory of public and private investment toward adaptation, while necessary, may have costs in the next 10–20 years, which will be felt by youth as well. Although these issues are complicated, youth need to engage politically and socially around them within national policy processes. In many countries, paths to impactful youth engagement are blocked by the gerontocracy which dominates governance and political processes. Given the centrality of key investment and policy decisions around adaptation to the youth's future welfare, young people should be supported and encouraged to engage further on these issues.

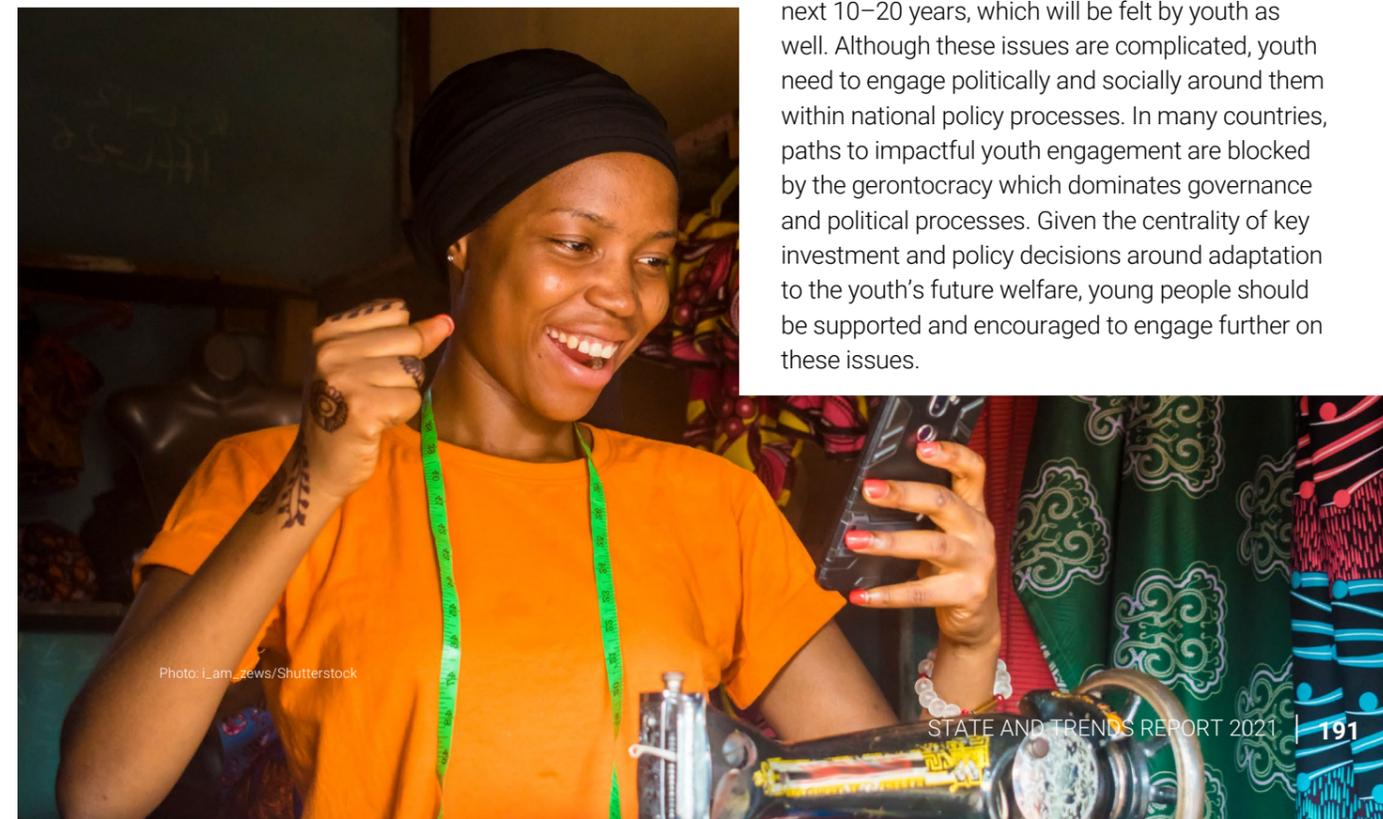


Photo: Lam_zews/Shutterstock

Box 1. What age group defines youth?



As a separate demographic group, youth are most commonly defined as those aged 15–24, a definition proposed by the UN Statistics Division (UNSD) and used by UN statistics-producing agencies such as the ILO, UNESCO, and the World Bank. But even among statisticians and UN agencies, different definitions prevail. Some distinguish between youth aged 15 to 18, as people in this age group are mostly expected to still be in school, living with their families or relatives, and not married or having children (UNICEF). Unfortunately, in a number of African countries, women under the age of 18, especially from lower-income families, are not able to meet this expectation, indicating important gender differences.

The African Union in 2006 enacted the African Youth Charter, labeling people aged 15–35 as youth. This was both a political statement—many countries have positions in Parliament

or in government reserved for youth, and 35 seemed a more fitting age cutoff—and a cultural and economic one, expressing the frustration many young people, especially males, feel with the difficulties they face in achieving economic independence and assuming what are considered to be the social responsibilities of an adult male. While the frustration is clearly real, Africans develop along the same lifecycle as people in other parts of the world, and survey data from Africa do indicate that most youth are economically independent from their parents by age 25; some even support younger siblings during their youth (also see Figure 2).

In this chapter, we adopt the UNSD definition, as it is widely used. Data in public international statistics databases such as World Development Indicators and ILOSTAT offer data broken down by this definition of youth, but not by other definitions such as that by the AU Youth Charter's.

THE DEMOGRAPHICS OF YOUTH IN AFRICA, AND THE CONSEQUENCES FOR YOUTH EMPLOYMENT OPPORTUNITIES

Youth is a distinct human developmental stage, a time of transition from dependence to independence, marked by critical decisions that affect the future of the individual and the broader society (see Box 1 for the definition used for this chapter's analysis). A positive youth trajectory concludes with the development of a mature adult who has a positive sense of self, has developed agency and impulse control, and has a set of core competencies and skills for engaging effectively with the economy and society.

A negative trajectory means a young person who does not develop self-esteem and agency, and concludes with risky and or destructive behavior such as teenage pregnancy, crime and violence, self-destructive health habits, and disengagement from society, all of which can lead to household poverty and lower economic growth.⁶ Recent research demonstrates that while cognitive learning proceeds most rapidly until the age of 15, socio-emotional skills are learned up to the age of 25 or later, in part because the key parts of the brain (notably the prefrontal cortex) continue to develop through this period.⁷ With so much at stake, it is clear why youth development is an important economic development issue.

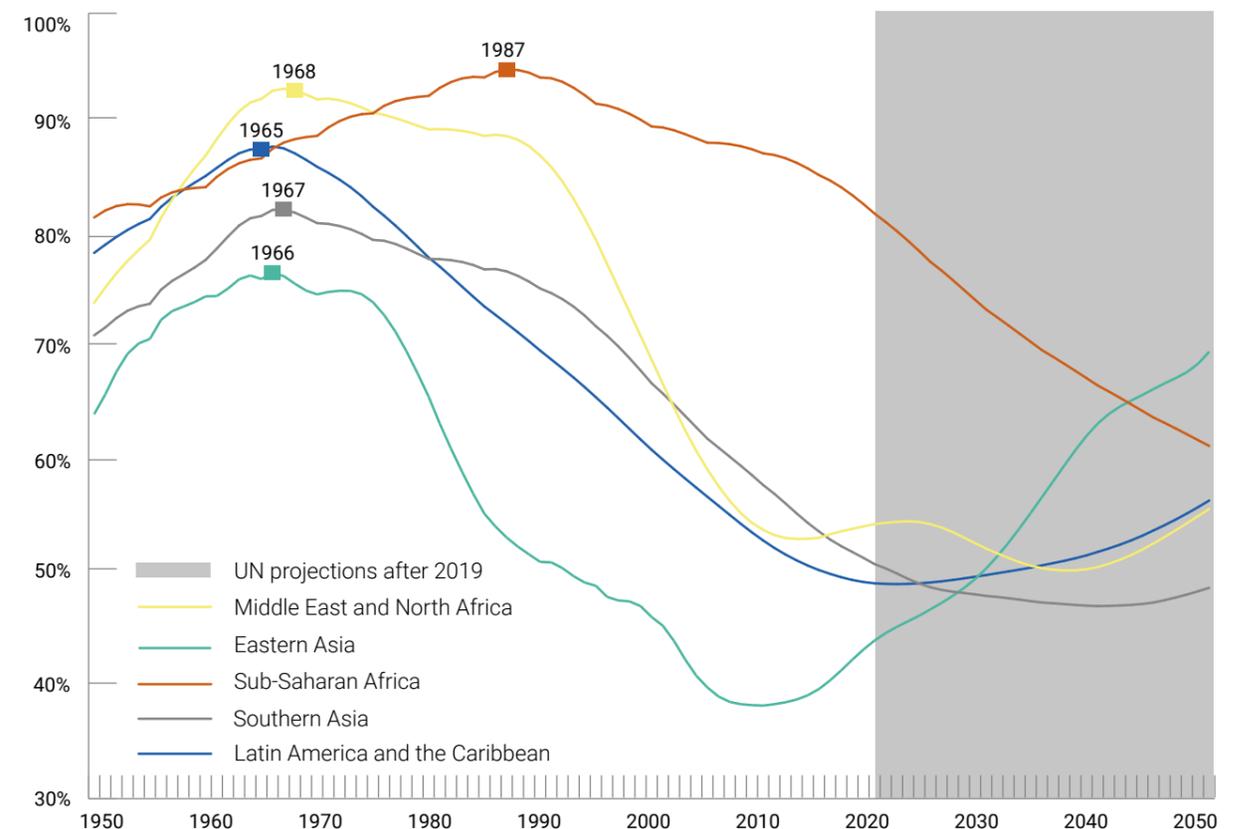
Youth constitute a high proportion of the population in low-income countries (LICs), and Africa, where 75 percent of the world's LICs are located, is the world's youngest region. 43 percent of the population is under the age of 15, owing to Africa's late and slow demographic transition.⁸ Youth comprise 20 percent of the total population, compared with 16 percent for the world as a whole.⁹ Income is one of the key determinants of demographic transitions, so it is not surprising that as a lower-income region, Africa's demographic transition is at early stage and its population is largely young.

One of the benefits of the demographic transition is a high share of working-age people in the population, implying a low share of dependents. This leads to more investments in human capital, a more productive labor force, higher public and private savings rates, all leading to an acceleration in economic growth called the demographic dividend.

However, Africa's transition has been unusually slow owing to persistently high fertility. This can be seen in Figure 1, which shows the ratio between the working-age population and those outside working age for Africa and other developing regions. The peak of the curve is somewhat higher, and the slope of the African curve less steep than in other regions, implying a later and slow transition and potentially little or no demographic dividend if the projections bear fruit.¹⁰ However, noteworthy as well is that the dependency ratio (the proportion of dependents in the population relative to the number of people in the age group 15–64) for the continent as a whole peaked almost 40 years ago. The youth share of the working-age population has also peaked (in 2001¹¹), so while the African population and labor force is young, it is getting older by the day; the youth bulge is gradually decreasing.

Figure 1: Africa's youth bulge is diminishing

Dependency ratio, actual and projected by region



Note: Working-age population is the estimated population aged 15–64; dependency ratio is the population outside working age ("dependents") divided by the working-age population.

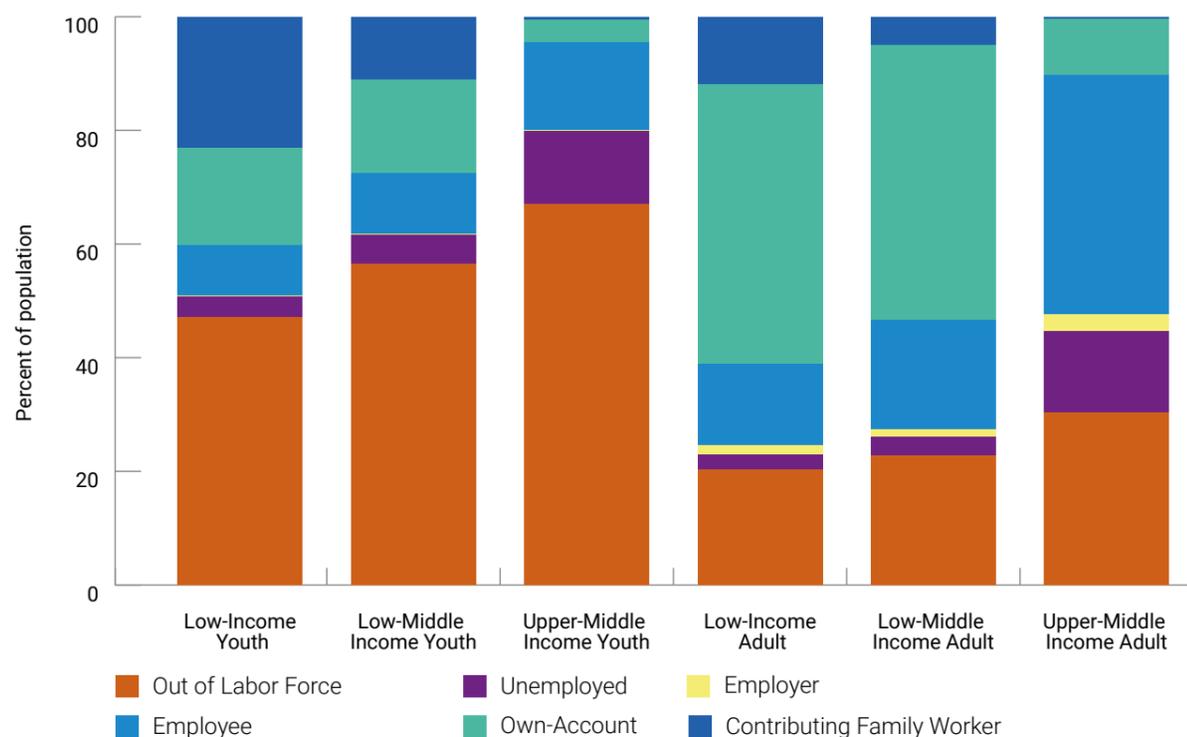
Source: United Nations World Population Prospects 2019 (Medium Variant)

Africa's demographic structure brings challenges for youth livelihood development and the employment and earnings outcomes. The lowest-income countries are characterized by a lack of modern, formal private firms in non-agricultural sectors offering wage jobs. As a result, most people work informally with members of their family or household, on farms or in informal businesses (the informal sector—see Figure 2). As the economy develops, it transforms, creating more formal firms that grow, increase productivity, contribute to GDP, and importantly, employ people. These employees usually receive higher wages on average than those working in household farms or businesses, because of opportunities to specialize, use skills more intensively, and work with more capital and technology. This employment transformation—an increase in the share of employment in formal wage work—is caused by an increase in labor demand relative to supply. High fertility creates a fast-growing labor force (a rapidly increasing labor supply), which delays the employment transformation. Africa's labor force is currently increasing at 3 percent per annum, and this pace is projected to slow very gradually.

In middle- and high-income countries, most youth are actually out of the labor force, in school or sometimes home with young children—they are neither unemployed nor looking for a job (Figure 2). In low-income countries, youth are likely to be contributing to household livelihoods—helping out on the family farm or in the family shop. As the role of household remunerative activities in the economy diminishes, participation as a contributing family member diminishes as well. And by the time they become adults at age 25, youth in countries at all income levels have mostly established their own livelihood, either as self-employed persons or as employees. It is hard for youth to operate a farm or business independently,¹² but easier for adults, as the data in Figure 2 reveal. However, it is only in the upper-income countries that the majority of employment is found in wage work. Partly as a result of the need to search for wage employment in upper-income countries, as well as the availability of more family resources and a broader social safety net, youth unemployment is high in upper-income countries and low in the lower-income countries.

Figure 2: Youth enter the labor force later, and receive better employment opportunities, as countries get richer

Employment status by age group



Source: ILOSTAT



Youth employment opportunities are directly related to their own education and skills, and the structure of employment at time of entry. Educational access has been growing in Africa, and as a result, youth have more education than their parents or any other previous generation. This helps improve youth job prospects, provided there is a corresponding expansion of employment opportunities with the potential to use this education. Formal wage jobs often require completed secondary education, and only about 30 percent of youth aged 20–24 reach this education level in Africa today.¹³ Studies in Africa show a high return to secondary and post-secondary education, indicating a demand for education in the economy.¹⁴ But in many countries, education

is expanding faster than the growth of formal wage jobs, leading to frustration among youth with education. Youth with secondary or post-secondary education have higher unemployment than their less educated counterparts, even in low-income countries.¹⁵ Also, African education is often low quality, and not developing the 21st-century skills African youth need, such as problem solving, teamwork, or digital skills,¹⁶ which may be one reason that educated youth are not supported by labor demand. Youth that do not enter into a wage job after leaving school rarely get one later, as there is limited mobility between these types of employment.¹⁷

Countries can increase the pace of employment transformation, creating better employment opportunities for youth by increasing the growth of firms employing workers—in other words, achieving transformative economic growth. This requires public investment in enabling social and economic infrastructure (such as education, health, roads, ports, energy, ICT, etc.), policies which encourage private investment (macroeconomic stability, a good business environment), and sources of finance for private investors—either internal or external. Prior to the COVID-19 pandemic outbreak and the ensuing economic downturn, Africa had 18 years without a recession; 39 out of 45 African countries had positive per capita GDP increases over this period.¹⁸ Some countries in Africa managed to achieve a significant employment transformation during this period.¹⁹ Many of these transforming countries also attained lower-middle income status (LMIC) or are very near that income level. During the same period, the poverty rate declined significantly.²⁰ But even in the most successful LIC and LMICs, over half of the labor force still works in the informal sector.

While output and productivity growth in the non-agricultural sectors (which is faster than the rate of output growth in the economy as a whole) is necessary to improve employment opportunities and outcomes for all, especially for the youth, output and productivity growth in the agricultural sector is necessary for poverty reduction and underpins development of non-agricultural sectors. Productivity-led growth in agriculture reduces rural poverty, frees up labor for the non-agricultural sectors, helps earn the foreign exchange needed to import technology for expansion of output in other sectors, provides raw materials for the development of an agro-processing sector, and helps feed a growing population.²¹ A more productive agricultural sector also offers better employment opportunities and outcomes for the less educated rural youth who will enter this sector. Youth do enter into farming and stay in the sector in LMICs even as the share of employment in agriculture declines, either because higher incomes and better prospects pull youth into a sector currently regarded less favorably by many young people, or because the lack of options outside of agriculture for rural youth push them into farming.

The average age of farmers in Africa today is under 40, reflecting the steady entrance of youth into the sector over the last 15 to 20 years.

Opportunities in wage-earning employment have increased faster for males than females in African LICs and LMICs.²² Several reasons appear to explain this. First, in most LICs and LMICs, primary school enrollment and completion are about equal for boys and girls, but boys are more likely to be enrolled and complete secondary and post-secondary education, levels that are usually prerequisites for a non-farm wage job. African firms (often male-owned and managed) also cite a preference for men in many jobs.²³ Finally, women are traditionally required to assume many responsibilities around the household—unpaid household work—which limits their capacity to observe the rigid full-time schedules that often come with factory or office work. In richer countries, infrastructure and the purchase of processed foods reduces this burden somewhat, especially in urban areas, but this has not taken place in Africa.²⁴ As a result, women are more likely to be self-employed or work in household farms and businesses than to have wage employment.

African youth seeking better-paying and more stable employment may undertake rural-urban migration. In Africa, rural-urban migration was high in the period after independence but settled down at a lower level in the 1980s–1990s in most countries. Rural-urban migration has distinct age and sex characteristics.²⁵ Overall, male youth are mostly likely to migrate out of rural areas, either for educational purposes or to seek employment. As a result, rural areas are becoming more feminized, with the opposite occurring in urban areas. Rural women aged 15–24 are about four times as likely to be heads of households in rural areas than men. This is possibly a concerning trend as female-headed farming households in Africa have lower productivity and earn less, in part owing to the burden of unpaid household chores, calculated to be over five hours per day in rural areas.^{26,27} Meanwhile, evidence also shows that even controlling for human capital and other characteristics valued in the labor market, urban labor-force participants in Africa earn more than rural ones.²⁸



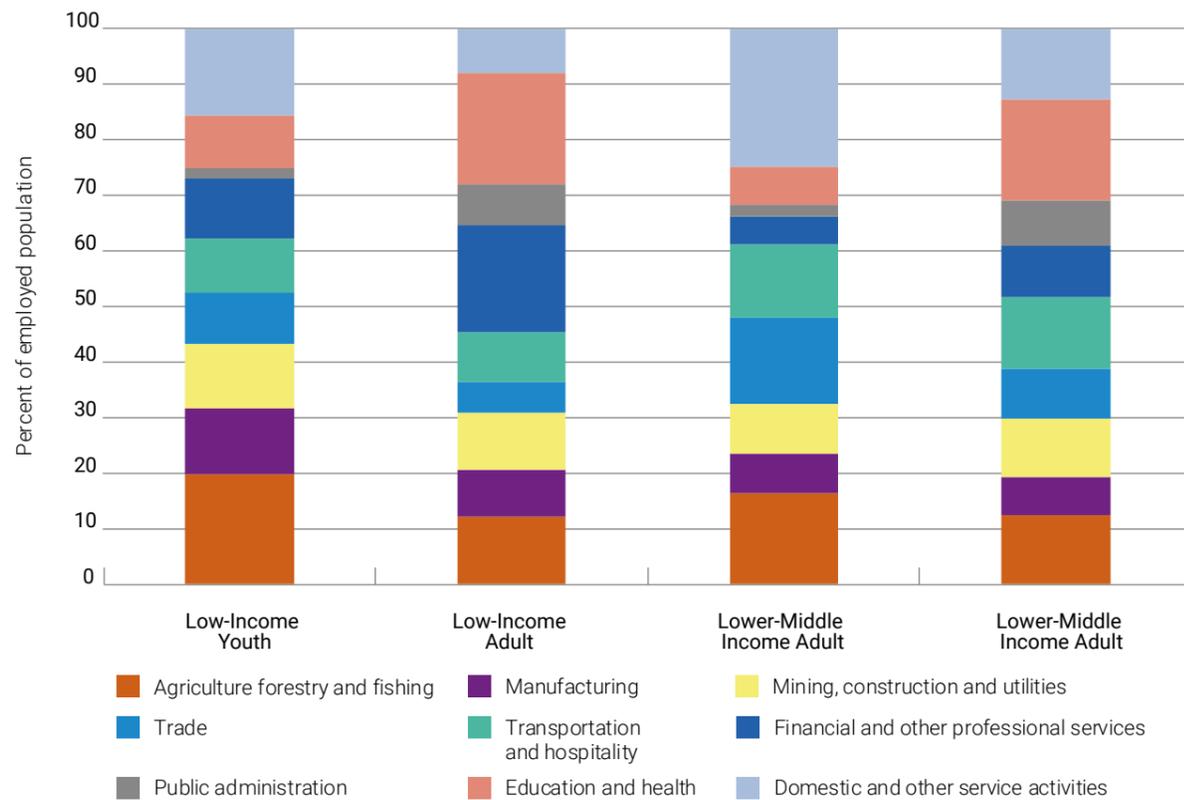
Photo: Anton Ivanov/Shutterstock

The result of the migration trends is that the youth share of the population in cities in SSA is about 28 percent while in rural areas it is about 19 percent. Faster fertility declines in urban areas (resulting in a smaller population age 0–15) explains part of the difference in the youth share, with migration accounting for the rest. The outcome of male-biased rural-urban migration is that the ratio of males to females aged 15–64 in urban areas is 1.05, while in rural areas it is 0.96. As discussed below, climate could accelerate youth rural-urban migration, but whether the male share would continue to be dominant, or fall is unclear.

In summary, while the share of youth in the working-age population is diminishing, the absolute number of youths in Africa is still increasing rapidly owing to slow fertility decline. Absorbing these youth into productive, remunerative employment opportunities has been and will continue to be a challenge for African countries. Multiple countries in Africa achieved broad-based growth and successfully improved employment opportunities from

2000–2018, through a combination of (i) supply-side policies (expansion of education), (ii) demand-side policies to encourage the entry and growth of firms and (iii) investments supporting productivity increases, especially in agriculture and digital services. Nonetheless, most youth and their parents continued to work in the informal sector. COVID-19 has interrupted this transformation process, frustrating the youth's ambitions. For the benefit of their youth as well as their older adult population, countries need to restart this process. Even when they can do so, most countries will face demographic headwinds, including spatial differences, which will slow down the process of transforming employment. They will increasingly face climate change headwinds as well, a topic to which we now turn.

Figure 3: Employment by sector by age group



PROSPECTS FOR IMPROVEMENT IN YOUTH EMPLOYMENT OUTCOMES—THE CLIMATE CHANGE THREAT

To improve employment opportunities, raise welfare and reduce poverty, Africa needs to continue to achieve broad-based and transformative growth. Current scenarios, which mostly do not incorporate climate change and adaptation effects and were prepared before the COVID-19 crisis, project that employment opportunities for the region as a whole will only transform slowly over the next 20 years.²⁹ For example, recent OECD projections suggest that the share of informal sector employment (household farms and firms) will only decline by three percentage points unless major shifts in policy and investments take place.³⁰ Most of this decline in informality is expected to take place in the agricultural sector, which has been losing its employment share for some time (see Figure 3), even as the absolute number of people working in the sector has continued to increase. Increased investments in

productivity-led growth—a must for the development of climate-smart agriculture—to raise earnings in agriculture could significantly accelerate growth in the share of non-farm employment and wage employment through multiplier effects and by freeing up labor trapped in subsistence agriculture. This would substantially reduce the extreme poverty rate in Africa by 2030, with further improvements expected after 2030 if African economies continue to transform.³¹

Climate change effects, and the adaptation challenges associated with them, have the potential to stall this potential positive trajectory, or even reverse progress to date on improving employment opportunities for youth. It could also widen inequality in the population, including among youth, by eroding welfare faster and deeper in rural areas. Models suggest that the worst effects will not be felt until around 2045–2050 (see Macroeconomics and Climate Adaptation chapter), but as other chapters in this report indicate, these effects are expected to

be severe. Today's youth would be 45–54 in 2050 and will have mostly passed their peak period of earnings growth at this point (if current age-earnings profiles hold). But the youth of 2030 will be in their peak period of earnings growth by 2045, and could suffer long-term income damage, affecting them and their dependents, if adaptation measures are not taken to counter the effects of extreme weather. Importantly, by age 40, in the absence of an effective social insurance program, people must start saving for old age if they wish to avoid burdening their children financially, meaning that today's youth could be disadvantaged in their older years owing to a worsening economy when they should be at peak savings. Africa's youth do not have to wait for 2050 for climate change to impact their livelihoods and income security, as countries are already experiencing the initial effects of more extreme weather patterns—both droughts and cyclones/flooding—with negative effects on youth employment and earnings opportunities.

The worst economic effects of climate change are expected to occur in the agricultural sector and in rural areas. Today's youth mostly see agriculture as the least desirable sector for employment. Yet youth, especially rural youth from poorer families, with few options to gain education, are entering the sector despite obstacles such as difficult access to land and credit.³² Youth embarking on agricultural livelihoods today will suffer the effects of climate change; their livelihoods need adaptation support. Yield per acre declines in cash and food crops of up to 5 percent by 2030 are projected in the absence of measures to improve water management and develop and disseminate more climate-resistant varieties of plants and seeds. Youth in pastoral areas will suffer the most, as most of these areas are already facing declining pastureland and competition for land from crop farmers (see Drylands chapter). Projected trajectories differ by sub-region. For example, as indicated in the Present and Projected Climate Risks chapter, central Africa from west to east is expected to receive more rainfall, while the Sahel, the Horn of Africa, and most of southern Africa are expected to see dryland expansion as well as increase in severity of droughts—a very harmful scenario for agriculture. Increasing incomes in agriculture have positive multiplier effects on the rural non-farm economy, including the economies of towns and secondary

cities, but decreasing agricultural incomes have the opposite effect, as the demand for non-farm goods and services declines. If this cycle of decline takes effect, progress in rural poverty reduction (where most of Africa's extreme poverty is located) can be expected to grind to a halt in some countries—for example, Ethiopia or Senegal, where significant progress has been made over the last 20 years, or Zimbabwe, where progress has not been made but could be realized with a different set of policies.

Non-agricultural sectors, which have been expanding employment and output, and mostly offer higher earnings potential, will also be threatened by climate change, as well as a host of other factors including technological change. Africa's manufacturing sector is small, and could possibly expand, especially in sectors such as food processing, textiles, footwear, furniture, building materials, and electronic assembly. However, this would not create sufficient wage employment opportunities for Africa's growing workforce, as manufacturing has become much more capital-intensive over the last 30 years, a trend that is expected to continue as technologies such as artificial intelligence (AI) and advanced robotics enters into widespread use in the developing world.³³ The service sectors in Africa are dualistic—supermarkets and sophisticated e-commerce exist alongside informal vendors selling their wares in market stalls and along the side of the road. Formal production of goods and services is more capital-intensive, which is one reason that employment in informal goods and service production has expanded faster when service sector output expands.

Both formal and informal businesses in non-farm sectors face two major constraints to expansion: infrastructure deficits and finance. The former is most likely to be affected by climate change. The infrastructure constraint—energy, trade and transportation, water supply and sanitation, and ICT services—will get worse as the world warms and the effects of extreme weather events are felt.

Expensive and unreliable electricity is the constraint most widely cited by formal employers as to why they do not expand their businesses. Africa's grid distribution system is fragile while its generation system is wholly inadequate relative to demand and is heavily dependent on hydro—itsself very vulnerable to climate-change induced rainfall declines.

Most households do not have access to electricity for cooking, so they rely on a diminishing supply of wood from forests and homemade charcoal. Road and rail transport is likewise expensive and slow. Africa’s coastal ports—lifelines for exports and imports—are slow and inadequate as well, except for the port of Durban in South Africa. Extreme weather events such as flooding and drought pose major risks to all these necessary services, making it harder to meet growing requirements from the private sector, government, and households. While all development strategies and public investment plans in African countries set targets for improving the quantity and quality of infrastructure services, these plans are massively underfunded. They mostly do not include plans for bolstering infrastructure to deal with climate threats.

Informal non-farm production of goods and services mostly takes place in urban homes, in marketplaces, or on urban or feeder roads. A majority of businesses are located in informal settlements (slums), which is a major risk factor to earnings, as informal settlements lack drainage systems as well as water supply and sanitation. Heavy rain can damage inventory or supplies and make it difficult for business owners to connect with clients for a sale or a haircut. Fire is an ever-present danger to both markets and homes, which increases when temperatures rise. African economic transformation and jobs development plans often neglect these risks to informal livelihoods. Youth entering this sector need solutions to reduce these vulnerabilities. Slum upgrading programs have had a mixed record with respect to this sector, as some programs have helped stabilize settlement infrastructure and improve security of tenure, while others have hurt businesses through relocation requirements (see Urban Development chapter).

National adaptation strategies generally call for action in two areas that are important to the economy’s capacity to create new employment opportunities for youth:

- **To support rural youth**, plans call for agricultural research and development to find and disseminate seeds and inputs resistant to looming weather and water challenges, as well as increased investment in water management, including irrigation; and

- **To support transformation and increased connectivity**, plans call for strengthening energy, transportation, housing, commercial real estate, and water and sanitation infrastructure against extreme weather events.

Approaches to both are discussed elsewhere in this report (see chapters on Agriculture, Transport and Energy, and Urban Development). For youth and youth livelihoods, both are important, but prioritization is difficult. Maintaining and growing agricultural productivity underpins transformation in other sectors and is critical for future poverty reduction, even if the sector will only employ a minority of youth in the future. Very few countries have successfully reached middle- or upper middle-income status sustainably without continuous increases in agricultural output and major improvements in agricultural land and labor productivity.³⁴ However, agriculture grows within a thriving agri-food system of activities off the farm (including downstream value-addition activities such as marketing and storage, wholesale and retail trade, processing and manufacture, and food service; and upstream farm support systems such as input production and supply). This implies that investments in maintaining or increasing productivity on the farm need an increased focus on non-farm infrastructure—investments that would support production and employment in other non-farm sectors such as manufacturing, trade, transportation, and tourism.



To achieve transformative growth, investments in climate change adaptation need to be complemented by other investments needed to support improvements in employment opportunities and welfare for youth, including continual expansion and upgrading of the education system; financial-sector development to expand access to credit and reduce costs (e.g., lowering spreads through improved information to reduce transaction costs); ICT investments to improve digital connectivity and support the burgeoning new internet and computer-enabled production technologies; investments to improve child and adolescent health and nutrition; urban soft and hard infrastructure investments to allow cities to support increased productivity; as well as programs to reduce income risk, thus encouraging youth investments in their future livelihoods, such as social insurance and social protection. The prioritization of such investments, and the effective implementation of investment projects to realize expected rates of return, has already been a huge challenge for African governments.

Climate change is therefore not only a threat to youth livelihoods and welfare 20+ years hence, but also a threat now, owing to the investments needed in Africa to avoid the weather effects that are starting to creep in. These investments have an opportunity cost, in terms of other private and public investments that might have been made to support the entry and growth of firms needed to transform the economy and offer new job opportunities to the youth. It is often not obvious how to balance these needs and set priorities. The only obvious fact is that not adapting could lead to major welfare declines down the road. Setting priorities is the role of the political system. Including and encouraging youth participation in decision-making that affects their future is critical to making sure that choices, investments, and interventions have their support and are responsive to their needs.



YOUTH ENGAGEMENT AND EMPOWERMENT FOR MORE RESPONSIVE CLIMATE CHANGE ADAPTATION

While the case for climate change adaptation in Africa to help ensure a better future for Africa's youth is strong, the youth are today are mostly not able to push this agenda forward. While in other regions youth are on the frontlines, helping to mobilize coalitions for change, this is mostly not happening in Africa. One reason is the political and social forces that have accepted and ratified government by gerontocracy in much of Africa. A second reason is the lack of understanding of the issues and complex trade-offs in the population, including the youth, and youth's focus on the struggle to

realize their economic ambitions in a challenging economic environment.

Observers inside and outside of Africa have often marveled at the African political paradox—the world's youngest region is governed by the world's oldest leadership. For the most part, this reflects the stranglehold that independence-era elites have maintained on political leadership and participation in decision-making.³⁵ Some of the longest-serving leaders are in effect autocrats; other are elected leaders in a state where one party controls and

dominates the electoral process, while others were elected in highly contested elections. In many countries there is a lack of a generational change of guard.³⁶ The political process, controlled by the older elites, has effectively blocked youth from any meaningful participation in decision-making processes. While governments usually have a Ministry of Youth (often combined with Culture and Sport), this tends to be the weakest ministry, tasked mainly with carrying out patronage.³⁷ Most political parties do have youth divisions, but without any formal authority or effective collaboration mechanisms reflecting real intergenerational partnerships. More often, youth divisions are used as shock troops in political clashes, fomenting violence to undermine opposition.

In countries where contested elections take place, youth often join their parents in voting for the gerontocracy. Youth make up between 30 and 50 percent of voters (depending on the age definition, see Box 1). There are several reasons for this.³⁸ First, Africa traditionally venerates elders, especially in rural areas where traditional hierarchies dominate. This effectively denies the youth opportunities to ascend to leadership positions even at local levels—the proving ground for aspiring politicians. Second, elections are quite expensive in Africa. In countries such as Ghana and Kenya, where elections are contested between political parties, recent elections are estimated to have cost \$12 and \$25 per voter respectively. It is hard for youth, without deep connections to the economic elite or access to government-funded patronage networks, to even consider participating.

African youth are both optimistic and frustrated with their current situation.³⁹ Youth in Africa overall are less satisfied with their political system, and with democracy in general, than their parents were at their age.⁴⁰ In a survey conducted in 2017 among rural youth in 21 African countries, 93 percent of rural youth expected to see a big improvement in their lives in the next five years.⁴¹ Most are surely disappointed now. Most youth leaving school want, and may even expect, to work in the public sector, owing to job stability and security.⁴² Participants in Oxford University's "Young Lives" study in Ethiopia

reported feeling "entitled" to government jobs if they completed secondary school. Others are willing to work in the private sector (10 percent of surveyed African youth), but as professionals or managers, not as laborers or on the factory floor.⁴³ These jobs are mostly not available. It is not surprising to find that almost two-thirds of young Africans surveyed in the School-to-Work Transition surveys (SWTS) performed between 2012 and 2015 wanted to change jobs if they could. Those working in the agricultural sector had the highest job dissatisfaction.

Yet, a key finding in this chapter is that despite deep dissatisfaction with their current employment and prospects, African youth are not focused on or likely to mobilize for policy change to avert the worst effects of climate change. According to the Afrobarometer survey,⁴⁴ the 18–25 age group has the highest percentage (26) of people agreeing that "no, climate change does not need to be stopped", compared with 21 percent for adults aged 56 and older, despite youth's higher education levels. Youth are also the least likely to say that climate change is making life somewhat or much worse. Youth reported low civic engagement, in part owing to time constraints, especially for young women. Youth are engaged in their communities, especially after a natural disaster. However, they are mostly engaged in low-cost, grassroots activities to help vulnerable community members or reconstruct damaged community infrastructure and housing.⁴⁵



We need to deliver on several fronts: Closing the gap between adaptation and mitigation financing, increasing support for adaptation action, including for the most vulnerable, as committed under the convention and the Paris Agreement, and specifically increasing support for adaptation financing."

Patricia Espinosa, Executive Secretary of UN Climate Change
Leader's Dialogue on the Africa Covid-Climate Emergency,
April, 2021

In principle, coalitions for change, including coalitions promoting an increased focus of public policy on preparation for and adaptation to climate change, could be strengthened through youth participation. Youth should be involved in the framing and design of programs so central to their economic future, as part of a broader engagement on economic policy choices. Bilateral donors and international NGOs support many different youth-empowerment type activities, although most are more focused on either improving employment options (through, for example, post-school training); improving adolescent health, especially for young women; or reducing potential or actual civil conflict (peacebuilding). Few are actively engaged in climate change activism. This may reflect the youth's own choices and preferences. For example, the AU youth empowerment initiative—developed through a participatory process—proposes “seven game-changing interventions”: (i) alternative pathways to education, (ii) young teachers' initiative, (iii) internships and apprenticeships, (iv) nurture youth-led start-ups, (v) leadership programs (focused on professional jobs), (vi) youth movement (regional consultations), and (vii) campaign on youth well-being and mental health. Climate change adaptation is not (yet) considered to be a game-changer for the youth.

POLICY RECOMMENDATIONS

Africa, the lowest greenhouse gas-emitting region, is expected to face the highest costs from impending climate change. This is very unfair, especially for Africa's youth, including those who are infants and children now but will be youths when the most extreme effects manifest themselves. African countries can avoid some of the worst effects by taking adaptation measures now. But these will be costly investments, both in terms of funds spent, and opportunity costs—the activities and investments which were not undertaken because funds and time were absorbed by adaptive investments. Africa has few other choices, however. While investments in adaptation will raise the cost of achieving the economic development Africa needs to provide better opportunities for its youth—those in this age cohort today and those expected to enter (and exit) the cohort over the next 30 years—the alternatives appear worse.

Beyond this overarching choice framework lies many context-specific choices around investment project selection and prioritization. Significant uncertainty surrounds these choices ex ante, as the rate of return depends in part on how an increasingly uncertain process unfolds.

For the benefit of the youth, countries need to undertake needed adaptation investments to ensure that economic transformation processes are sustainable, but not neglect the key human capital and other investments needed to help youth make the transition to adulthood and their own livelihoods. Investments need to be based on a realistic assessment of where most employment opportunities are likely to be in the future—in agriculture, and in informal household production of goods but mostly services, not in where youth might wish they would be (e.g., the public sector or high-tech start-ups).

Given the importance to their future, youth need to engage politically and socially around them within national policy processes to a much greater degree, for it is they who have the greatest stake in the outcomes. They should be consulted and actively and effectively engaged in both early-stage investment decisions and in monitoring outcomes at the local and national levels. A prerequisite appears to be a better understanding among youth of what is at stake for them, and what are the parameters for adaptive change to reduce the risks to their welfare ahead.



We need to be ambitious, in quantities and in qualities. It is really the cornerstone of our willingness and motivation.... We need to mobilize the public and private sector.”

Remy Rioux, CEO, Agence Française de Développement, on behalf of H.E. President Emmanuel Macron of France
Leader's Dialogue on the Africa Covid-Climate Emergency, April, 2021



Photo: Oluwafemi Dawodu/Shutterstock

Youth and Employment in North Africa

Photo: Adriana Mahdalova/Shutterstock

CHALLENGES

Unemployment among college-educated youth in North Africa remains high, especially among young women. Frustration over the lack of economic opportunities and access to basic services is evident in public demonstrations and calls for government change. The situation has also fueled the migration of youth from rural to urban centers, as well as formal and informal migration across the Mediterranean Sea northward towards Europe.

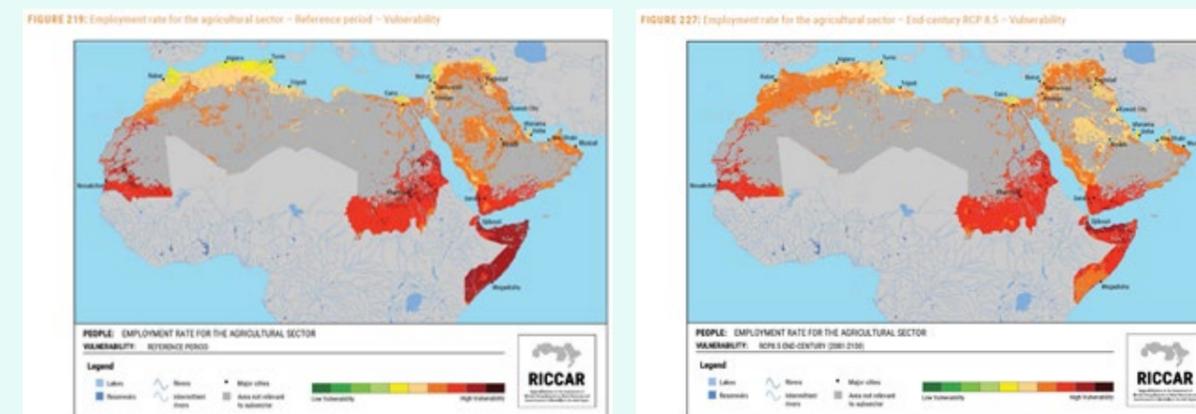
Climate security concerns associated with reduced water, food, and energy security and the damage caused by extreme climate events have also exacerbated unemployment and governance challenges in countries facing protracted conflicts. These conditions have contributed to internal displacement and increased the risk of radicalization of young cohorts. These impacts are stymying efforts to achieve peace and prosperity for all.⁴⁶

The recent droughts experienced in parts of North Africa and the associated loss of income from agricultural value chains have contributed to socio-economic unrest. Agricultural employment vulnerability due to climate change in the Maghreb is projected to reach 77 percent by the end of the century if measures are not taken to increase adaptive capacity.⁴⁷ The western Tindouf basin, the western North Africa coastline, the upper Nile Basin, and the Horn of Africa face the highest vulnerability, as shown in Figure 1.⁴⁸

Additionally, there is a lack of enabling environments for entrepreneurship in the region—particularly concerning access to services, infrastructure, and finance—and pathways to regularizing work from informal to formal structures. Small and medium-sized enterprises face the most significant restrictions regarding access to credit, which affects women entrepreneurs disproportionately, as women-owned businesses tend to be SMEs.⁴⁹

Despite these challenges, opportunities are emerging to increase the adaptive capacity of youth and engage them in climate change advocacy and action.

Figure 1: Agricultural employment vulnerability at mid-century and end-century compared to the reference period



Source: ESCWA et al., Arab Climate Change Assessment Report: Main Report, E/ESCWA/SDPD/2017/RICCAR/Report, pp. 307-310.

Opportunities

Climate change considerations are being increasingly mainstreamed to enhance agricultural productivity and address water scarcity through remote sensing and regional climate modeling. These measures are helping to improve agricultural productivity and encourage more efficient water use in Algeria, Tunisia, and Morocco.⁵⁰ The efforts have been complemented by capacity building and institutional strengthening that have empowered young professionals to access new technologies and tools to enhance adaptation efforts. In tandem, more technology-savvy agricultural practices have been introduced through mobile applications. These tools lend themselves to young cohorts with smartphones and knowledge of social media, allowing them to access tools for information and innovation from production to marketing.⁵¹ Transportation and logistics centers in Morocco and Tunisia are also becoming more efficient and responsive to extreme climate events with the support of Global Environment Facility projects.

Improved access to electricity can also strengthen adaptive capacity. Renewable energy projects are enabling the establishment of women-owned agribusinesses in rural areas in Morocco⁵² and Tunisia.⁵³ These efforts are generating climate adaptation and mitigation co-benefits.

Targeting women and youth in Tunisia

In Tunisia, 47 percent of the population is under the age of 30. The agricultural sector, the primary source of income across much of the country, faces challenges associated with poor access to financial services, weak rural organizations, agricultural land fragmentation, and climate vulnerability. The sector's underdevelopment has pushed Tunisian youth to migrate from rural regions to urban areas looking for employment. Unemployment among young women aged between 15 and 24 years is particularly high, at 34.4 percent.

In 2017, the government adopted policies to promote a social and solidarity-based economy to develop the green economy and foster public-private partnerships for the professional training, employment, and economic inclusion of youth.

The Regional Initiative for Promoting Small-scale Renewable Energy Applications in Rural Areas of the Arab region (REGEND)⁵⁴ works to improve livelihoods through access to renewable energy technologies that can increase socio-economic inclusion and gender equality through integrated rural development focused on entrepreneurship and overcoming natural resource challenges. The initiatives have included training and investment in decentralized electrification projects and solar water pumping to support irrigation in rural areas of Tunisia. In addition, forty pro-poor microfinance investment projects prepared by local female entrepreneurs have been implemented in Chorbane, Tunisia alone.⁵⁵

Technology and finance for green jobs and entrepreneurship

A growing number of youth innovators and entrepreneurs are ready to take a leap of faith to launch start-ups that revolve around green ideas and corporate social responsibility. These efforts are supported by incubators promoting entrepreneurship in water, energy, and food security, such as the MENA Innovation Hub.⁵⁶ As part of the efforts to prepare and mobilize the next generation of entrepreneurs, ESCWA and the International Chamber of Commerce (ICC) launched the joint Centre of Entrepreneurship in October 2020. The center pairs local entrepreneurs with experts from the United Nations and ICC to provide mentoring and coaching, thus establishing a community of innovative professionals with the potential to transform the future of business.

Initiatives to promote STEM in schools are implemented throughout the region to ready youth to be part of a greener workforce; for example, through the water innovations competition session conducted during Cairo Water Week 2021 and the through hackathons organized by the FAO and International Water Management Institute (IMWI).

These initiatives contribute to the development of green jobs; with digital online entrepreneurship expected to be the next frontier for accessing decent jobs during the economic recovery after the coronavirus pandemic, developing an incentive package for online entrepreneurship is a key to achieving success.⁵⁷

REGEND Workshops in Chorbane, Tunisia



Capacity building

Joint action plans were developed through the Lima Adaptation Knowledge Initiative (LAKI) with lead organizations in climate-smart agriculture, drought monitoring, and nature-based solutions in North Africa and other regions. These action plans were designed to bridge critical knowledge gaps to facilitate adaptation. Several of these projects target youth who are more familiar than the older generation with smartphones and other digital technologies that can improve agricultural efficiency.

These efforts have empowered youth to take leadership roles in building back better by fostering opportunities to contribute to the regional knowledge base through digital technologies that engage them in data collection, research, and analysis on the ground, which can inform climate decision-making and empower climate action at the community level.

Youth engagement

The region is witnessing the emergence of a new generation of "young global citizens" who are more connected to a globalized world and well versed in the realm of technology and its potential to open new frontiers and create pathways to a cleaner, greener, and more sustainable world.

Climate and environmental movements and campaigns are growing across the Arab world, particularly among young people, who can articulate and understand the linkages between sustainable economic development, social wellbeing, and safeguarding the environment. Local engagement in national adaptation planning and community-based solutions also facilitates youth participation in decision-making processes.

Targeted interventions and inclusive engagement in a green recovery can thus help to unlock the potential of youth for a more sustainable future.

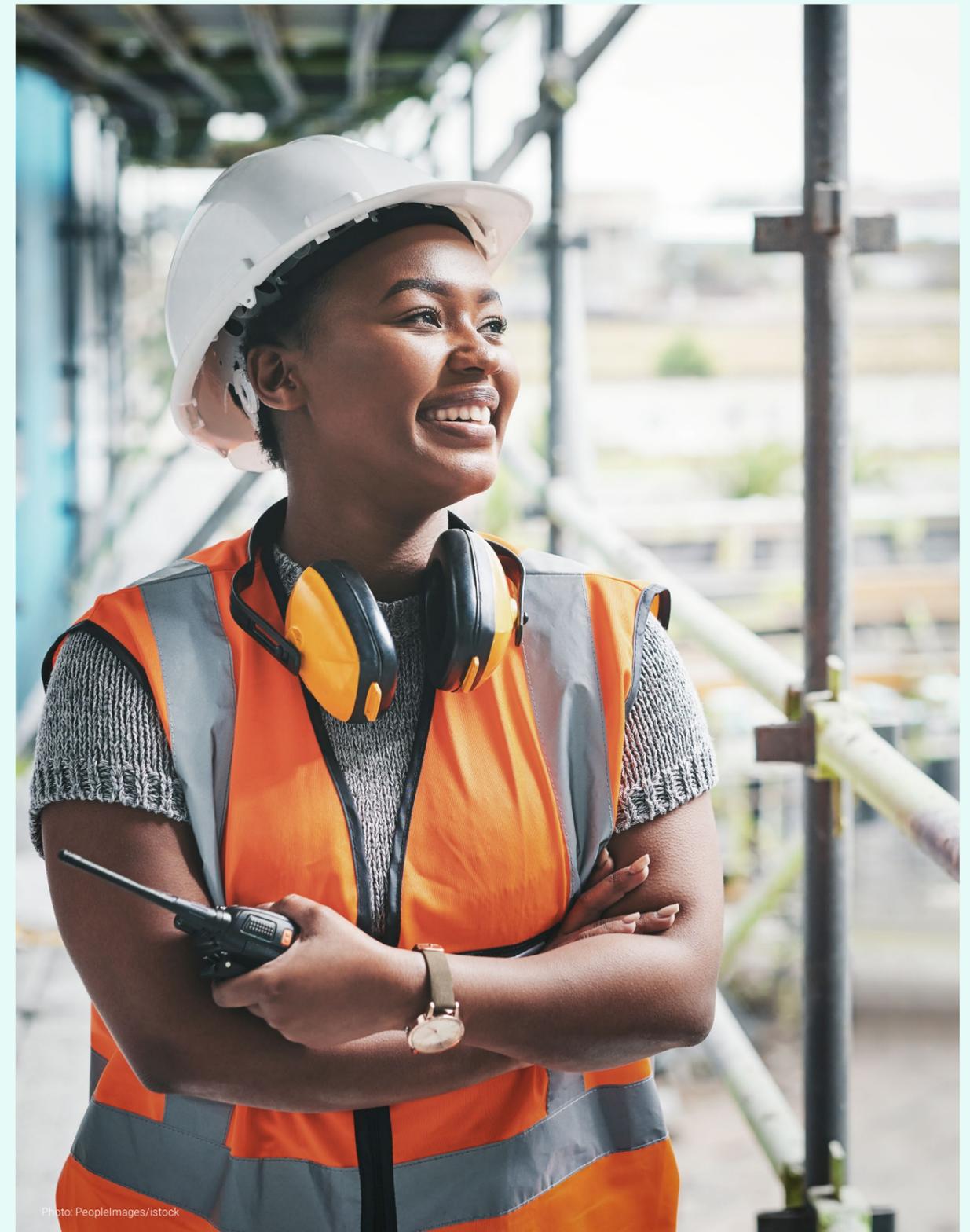


Photo: PeopleImages/istock

Youth and adaptation in Africa - Voices of resilience after Cyclone Idai



Photo: iStock/wilpunt

When Cyclone Idai swept across Malawi, Mozambique, Zimbabwe, and Madagascar in March 2019, Alinafe Nazombe, a young student and farmer in Mulanje, Malawi, lost her harvest after her farm was devastated by floods. “I was in school, so I could not go to the farm myself to try to limit the damage. I paid others to do it for me, but at the end of the day my crops were washed away, and I had nothing.”

Lucia Gulugulu, a young community nurse from Chimanimani, Zimbabwe, was also caught off guard. What first appeared to be ordinary rain turned out to be the second most deadly tropical Cyclone on record in the Southern Hemisphere, causing

immediate damage to life and property and pushing an already strained health system to the brink in its aftermath, as compromised water and sanitation systems led to the spread of cholera and typhoid.⁵⁸

Fed by warm ocean temperatures, Idai affected over 2.2 million people, leaving an estimated 100,000 people displaced, more than 600 dead and an estimated 1,600 missing.^{59,60} The Cyclone hit one of the youngest regions in the world – young people between the age of 15 and 24, representing more than 20 percent of the population in the four affected countries, were severely affected.⁶¹ Such extreme weather events not only interrupt education for youth, but also result in the loss of caretakers, livelihoods, food security and other development opportunities and infrastructure, with deep impacts on their future. A recent report by the *Global Center*

on Adaptation, *Young People and Drivers and Barriers to Climate Adaptation Action*, features interviews with the youth affected by Idai and other extreme weather events in Africa, to record their perspectives and responses to climate change.⁶² It finds that the impacts of such events can be long-lasting. The flooding caused by Idai destroyed agricultural produce and stripped farmlands of nutrients, ultimately resulting in increased food prices. As a result, families in remote farming villages like Nazombe’s are further driven to food insecurity and poverty.

The GCA report also finds that youth in Africa have demonstrated remarkable resilience and a commitment to protect their communities by organizing themselves, mobilizing resources, and leveraging the power of technology and social media. They are proactively engaged in disaster response, adaptation, resilience building, and promoting awareness about climate change.

Lucia Gulugulu, for instance, set up a ‘youth corner’ at her clinic to educate patients on the links between environmental change, extreme events, and health. In Maputo, Mozambique, 24-year-old Cidia Chiassungo established a youth movement called United for Beira to ship relief items to affected regions in the country after road connections were lost due to the Cyclone, and to help reunite families. Jossias Sixpence, a 35-year-old physical education instructor assembled a group to help displaced families resettle across Mozambique. His group now focuses on future disaster risk reduction by mobilizing youth to

plant mangroves to protect coastal communities, and by working with architects to design resilient buildings. Wilker Dias, a 25-year-old political activist and journalist in Mozambique, distributed seeds in affected areas to support afforestation.

However, youth remain on the fringes of policymaking in Africa, with limited influence on policies. Recognizing this, Lucia Gulugulu’s 30-year-old sister, Elizabeth Gulugulu, project manager at the African Youth Initiative on Climate Change, advocates inclusive climate policies in Zimbabwe. Young people in Africa are increasingly connected with peers around the world, advocating for global cooperation. They are repositioning themselves, reinforcing their own knowledge and capacity to adapt, and to mitigate the impacts of climate change on their lives.



Photo: Mukurukuru Media/iStock