Creating opportunities for rural youth

2019 Rural Development Report

Overview

IFAD
Investing in rural people

Creating opportunities for rural youth

2019 Rural Development Report

Overview

IFAD
Investing in rural people

Table of contents

Figures

Maps

Acronyms

APR	Asia and the Pacific
DHS	Demographic and Health Surveys
EVI	Enhanced Vegetation Index
LAC	Latin America and the Caribbean
MODIS	Moderate Resolution Imaging Spectroradiometer
NASA	National Aeronautics and Space Administration
NEN	Near East, North Africa, Europe and Central Asia
RT	rural transformation
SSA	sub-Saharan Africa
ST	structural transformation

Acknowledgements

The Rural Development Report 2019 benefited from the dedicated work, expertise and the contributions of people both within and outside the International Fund for Agricultural Development (IFAD).

The Report was prepared under the guidance of IFAD's Senior Management. Paul Winters, Associate Vice-President (AVP) of the Strategy and Knowledge Department (SKD), provided oversight and leadership throughout the development process. The Report benefited from the technical leadership of the lead external advisor David Tschirley, Professor in the Department of Agricultural, Food, and Resource Economics at Michigan State University and of the internal co-leads Aslihan Arslan, Senior Economist in the Research and Impact Assessment Division, and Constanza Di Nucci, Senior Technical Advisor to the AVP of SKD. Eva-Maria Egger played a critical role in the writing and Anne Körner in the development process of the report. Kate Albers and Margherita Squarcina provided research assistance.

This report draws on the research and analysis of several background papers prepared by Kibrom Abay, Jenny Aker, Jens Andersson, Channing Arndt, Woinishet Asnake, Elisabetta Aurino, Hailemariam Ayalew, Ghassan Baliki, Rui Benfica, Roehlano Briones, Karen Brooks, Tilman Brueck, Jordan Chamberlin, Cristina Cirillo, Alan de Brauw, Miguel Del Castillo, Michael Dolislager, Cheryl Doss, Shahnila Dunston, Neil Ferguson, Louise Fox, Arianna Gasparri, Maia Guiskin, Faaiqa Hartley, Jessica Heckert, Stephen Hunt, Thomas Jayne, Nader Kabbani, Suneetha Kadiyala, Saweda Liverpool-Tasie, Athur Mabiso, Mariellen Malloy Jewers, Ashira Menashe-Oren, Bart Minten, Jorge Morel, Laura Muñoz, Milu Muyanga, Emily Myers, Audrey Pereira, Paola Pereznieto, Lauren Phillips, Ricky Robertson, Wolfgang Stojetz, Manuel Orozco, James Sumberg, Agnes Quisumbing, Thomas Reardon, C.S. Srinivasan, Guy Stecklov, Jennifer Stevenson, Carolina Trivelli, David Tschirley, Ben White, Keith Wiebe, Pablo Yanes, F. Kwame Yeboah and Giacomo Zanello. The report also benefited from the work of Fabian Löw who processed all georeferenced data and from the research of our World Bank colleagues Valentina Costa, Sydney Gourlay, Talip Kilic, Philip Randolph Wollburg and Alberto Zezza.

Many colleagues and experts inside and outside of IFAD provided helpful comments, participated in consultative workshops and made other valuable contributions. The team would like to thank the following: Jonathan Agwe, Rahul Antao, Tom Mwangi Anyonge, Javier Baez, Giulia Barbanente, Ndaya Beltchika, Francesca Romana Borgia, Fabrizio Bresciani, Denisa Butnaru, Alessandra Casano, Federica Cerulli, Thomas Chalmers, Karima Cherif, Shirley Chinien, Stefano Consiglio, Antonella Cordone, Luc Cristiaensen, Ivonald Da Cruz, Pedro de Vasconcelos, Maria Victoria Fazio, Ilaria Carlotta Firmian, Federica Emma, Juliane Friedrich, Beatrice Gerli, Massimo Giovanola, Michael Hamp, Sheryl Hendriks, Stein Holden, Edward Heinemann, Patrick Herlant, Steven Jonckheere, Roberto Longo, Bruno Losch, Mia Madsen, Bernadette Mukonyora, Mauro Martini, Harold Liversage, Elisa Mandelli, Torben Nilsson, Joyce Njoro, Rikke Grand Olivera, Richard John Pelrine, Mattia Prayer-Galetti, Danielle Resnick, Francesco Rispoli, Sara Savastano, Amath Pathe Sene, Abdelkarim Sma, Tisorn Songsermsawas, Silvia Sperandini, David Suttie, Ilaria Tedesco, Benoit Thierry, Sergio Urzúa and Kathy Zissimopoulos.

Valuable feedback was also provided by Francesca Dalla Valle, Elisenda Estruch, Julius Jackson, Giulia Orlandi, Lisa van Dijck, Libor Stloukal and Peter Wobst from the Food and Agricultural Organization of the United Nations (FAO).

The team also benefited from the feedback of peer reviewers Glayson Santos Ferrari, Peter Hazell, Juan Moreno, Courtney Paisley, Esther Penunia, Lindiwe Majele Sibande, Leonard Mizzi and his colleagues Ragui Assaad, Louise Fox, Sabah Ismail Al-Haidoos, Monica Rubio and Silvana Eugenia Vargas Winstanley.

Bruce Ross-Larson and his team provided editorial guidance. Special thanks are extended to Laura Luccioli, Sandra Reyes and Petra Valente for their administrative expertise and support throughout the development process. Many thanks to the colleagues providing guidance and support throughout the production process – Amy Elizabeth Bennett, James Edge, James Heer, Joanne Levitan, Magali Marguet, Bruce Murphy, Birgit Plockinger, Janet Sharpe, Michelle Tang and Cassandra Waldon. Andrea Wöhr was the principal graphic designer. We would further like to thank Nathalie Baiges, Paola de Leva, Said el Elaimy, João Esteves Ferreira, Diane Frishman, Amalia Galetto, Patricia Michelle Heery, Hani Khayat, Chantal Quoirin and Jorge Tabuenca Lopez for editing this publication and translating it into the IFAD official languages.

We would like to take this opportunity to thank our IFAD colleagues and all external experts from the development community involved for their ongoing support, dedication and contributions to the team and to the Report. Your effort is highly appreciated.

The team would like to acknowledge the generous financial support provided by the Governments of Italy and Germany.

The team apologizes to any individuals or organizations inadvertently omitted from this list and expresses its gratitude to all who contributed to this Report, including those whose names may not appear here.

Foreword

Nearly 1 billion of the world's 1.2 billion youth aged 15-24 reside in developing countries. Their numbers are growing far more rapidly in lower income countries than in higher income countries, particularly in rural areas. In fact, rural youth make up around half of all youth in developing countries.

The growing youth population has enormous potential. Investing in young people can yield boundless results in terms of poverty reduction, employment generation and food and nutrition security. After all, they are the farmers, workers and entrepreneurs of tomorrow. Their energy and dynamism is needed to transform food systems and rural areas. They have the potential to help feed the world and thus solve one of the biggest global challenges. These young women and men are key to achieving the Sustainable Development Goals by 2030 and indeed, to our planet's future.

But there are obstacles and challenges in their way. Young people are approximately three times more likely than adults to be unemployed. About 150 million young workers are among the working poor; and every year 14 million young Africans alone are expected to enter the job market – and the majority live in remote communities.

Constraints on access to land, natural resources, finance, technology, knowledge, information and education also make it difficult for young people to seize opportunities for bettering their lives and contributing to the rural economy. At the same time, the rapid pace of change today is altering the landscape and challenging traditional paths to development. The question is, how can rural youth prepare to prosper in this new world of intelligent automation and digital giants, globalized communication of information, aspiration and values, and a changing climate and shifting dietary habits – all of which have major implications for rural life and economies.

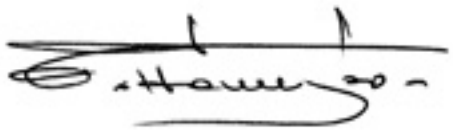
This report is based on substantive evidence and attempts to provide the kind of analysis that can inform policies, programmes and investments to promote a rural transformation that is inclusive of youth. It examines who rural youth are, where they live, and the multiple constraints they face in their journey from dependence to independence.

A distinguishing feature of this report is that it examines rural development in the context of the transformation of rural areas and the wider economy. Opportunities for young women and men begin with a transformation towards a dynamic rural economy. These opportunities depend on the national, rural and household settings in which young people reside. Only by understanding these multiple layers can governments and decision makers design effective policies and investments to enable young rural women and men to become productive and connected individuals who are in charge of their own future.

However, creating broad opportunities in these settings does not guarantee that rural youth will be able to seize them, because young people, and especially young women, face particular constraints. An effective approach to rural youth policy and investment is then one that strikes the "right balance" between creating broader rural opportunities and fostering youth-centred investments (in the agrifood sector, digital technologies and climate change adaptation) that can specifically generate employment opportunities for young people.

IFAD is sharpening its focus on rural youth and in this funding period, 2019-2021, targeting a dramatic increase in the number of young people trained in income-generating activities or business management. In our Rural Youth Action Plan we set a target for 50 per cent of our loan portfolio to be youth-sensitive so that youth dimensions will be carefully analysed and assessed when designing projects. We recognize that access to new and traditional knowledge and innovations, markets, and land, when complemented by skills and training, can enable youth to drive inclusive transformation of rural areas and long-term food security and poverty eradication.

Investing in young people is the bottom line. If we neglect them now, as their parents were in many cases neglected, we will have to face the same issues in the future that we have today. We must ensure that they gain the skills, resources and confidence they need to run profitable farms and innovative businesses and become the community leaders of tomorrow.



GILBERT F. HOUNGBO
President of IFAD

Enabling young rural women and men to become productive, connected and in charge of their own future requires thinking differently about the diverse settings in which they seek to thrive, the multiple constraints they face and the dynamics of change in the world that create challenges and opportunities for them. Only by understanding the multiple layers that shape youth livelihoods, how they differ across countries and opportunity spaces, and how they are evolving can governments and decision makers design and implement more effective policies and investments.

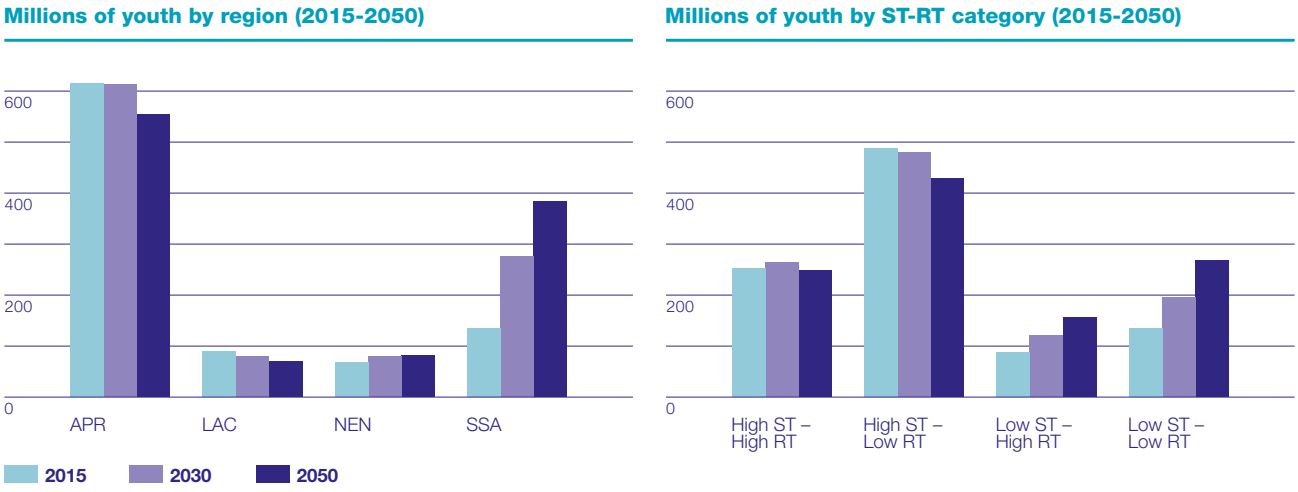
Viewing the situation from this perspective leads to two main conclusions. First, devising a rural youth policy and investment agenda will entail simultaneously tackling larger issues of rural development at the same time. When economic and social opportunities are limited, targeted support for rural youth will generally be ineffective. Second, policies and investments that promote a broader rural transformation process do not automatically translate into better opportunities for young people. Young rural women and men face particular kinds of constraints, and if they are to be able to take advantage of the opportunities that are opened up for them, those constraints must be addressed by means of targeted action. In recognition of this situation, the Sustainable Development Goals include specific indicators designed to capture progress in this area.[i] As indicated in the *Rural Development Report 2016*, rural transformation initiatives must be specifically designed to include rural youth.

Why young people are important for rural development

Youth is a distinct human developmental stage, a time of transition from dependence to independence and a time marked by critical decisions that affect the future of the individual and society. A successful transition results in a well-adjusted adult who is able to prosper and to contribute to the economy and society. This generates long-term payoffs for the individual, his or her family and the broader social and economic groups of which the individual is a part. An unsuccessful transition may result in lifelong poverty and social maladaptation, generating long-term negative outcomes for the individual, his or her family and society at large. Thus, since the stakes are so high, this period of life is universally a focus of intense concern.

Concern about youth has deepened even further across developing countries over the past decade for several reasons.[ii] First, there is the sheer number of youth and this population segment's rate of growth. Nearly 1 billion of the 1.2 billion people in the world between the ages of 15 and 24 reside in developing countries, and their numbers are growing far more rapidly than in higher-income countries (UNDESA 2017).[iii] Moreover, the growth of this population group is concentrated in the world's poorest developing countries, especially those in Africa (see **FIGURE A**), and is a direct result of the slow pace

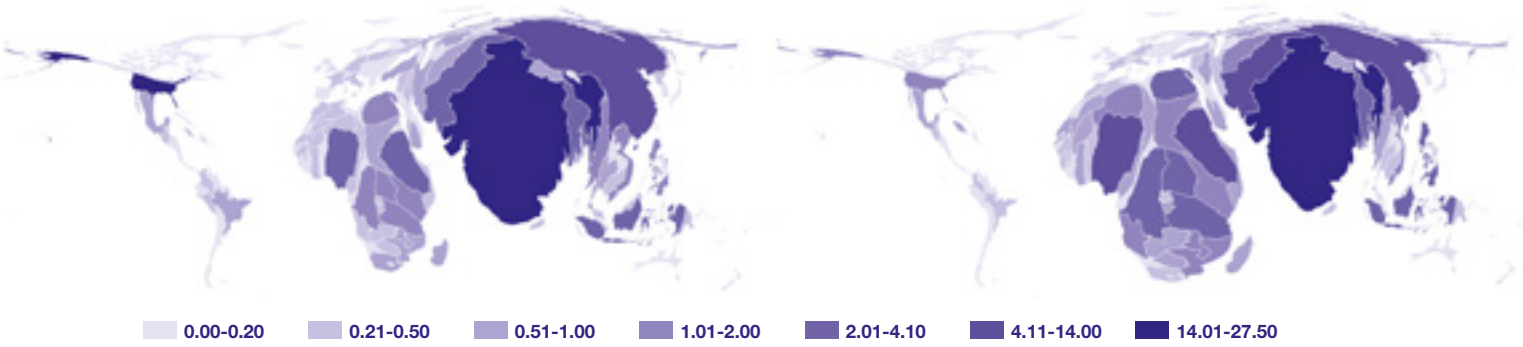
FIGURE A The number of young people is growing rapidly in sub-Saharan Africa and in countries with low levels of structural transformation



Note: ST: structural transformation; RT: rural transformation; APR: Asia and the Pacific; LAC: Latin America and the Caribbean; NEN: Near East, North Africa, Europe and Central Asia; SSA: sub-Saharan Africa. The dataset covers 85 low- and middle-income countries (based on the World Bank definitions of these categories and data for 2018).
Source: Authors' calculations, based on United Nations Department of Economic and Social Affairs (2017a).

of their demographic transition to lower birth rates in the wake of sharp declines in death rates. Consequently, these countries' population pyramids have a massive base of young people, and this is even more so in rural areas than in urban areas. As a result, the absolute number of young people in Africa is projected to continue to grow far faster than in the rest of the world, driving a huge increase in the continent's share of the world's rural youth over the next 30 years (see **MAP A**) (Stecklov and Menashe-Oren, 2018). There are 494 million youth living in rural areas of developing countries as defined by administrative delineations of rural and urban (UNDESA 2014 and 2017). This number rises to 778 million if we consider all youth except those living in densely populated

MAP A A disproportionate share of rural youth today are in Asia, but Africa's share is projected to rise rapidly



Note: This map is an equal-area cartogram (also known as a density-equalizing map) of the share of global rural youth, by country. The cartogram resizes each country according to its share of the global rural youth population. The seven different colours shown on the map differentiate the various categories of countries according to their shares. The projected increase in Africa's share of rural youth by 2050 is represented by the larger size of that continent relative to the others.
Source: Authors' calculations using the Gastner-Newman method (2004) based on spatially disaggregated population data for 2015 and projections for 2050 from the United Nations Department of Economic and Social Affairs. The rural youth projections are created by applying the projected share of the rural population to the total projected youth population. This is based on the assumption that age structures in rural and urban areas will remain the same. Potential deviations from this assumption are not expected to have a noticeable effect on overall trends in rural youth populations across regions.

urban areas. Today, 65 per cent of the world's rural youth live in Asia and the Pacific, and 20 per cent live in Africa (see the left panel in **MAP A**), but Africa's share is projected to rise to 37 per cent by 2050, while Asia and the Pacific's will fall to 50 per cent.

The second driver of concern about developing-country youth is the transformative technological change of unprecedented speed that is now being generated by the advancing wave of digital technology. This dynamic is driving rapid social and economic change and penetrating every aspect of people's lives. While this digital revolution is opening up new, undreamed-of opportunities, it is also closing down more traditional paths of rural development (World Bank, 2019) and creating a great deal of uncertainty among decision makers about how to respond to these changes.

This digital revolution, combined with strong economic growth in developing countries over the past 20 years, is one of the factors behind the third main source of concern about developing-country youth: young people's rapidly rising aspirations in terms of economic advancement and having a say in their societies' decisions. The defining characteristic of the digital revolution is a massive decline in the cost of information and the consequent massive increase in access to the information that is embedded in ideas, images, values, and goods and services from around the world. Despite considerable economic progress, the rising aspirations of young people may be outpacing the expansion of their economic and social opportunities (World Bank, 2019). These rising aspirations, and the potentially negative social and political outcomes of a failure to meet those aspirations, underscore the need for action on the part of policymakers.

BOX 1 Defining youth

Many people reject the notion that youth can be defined by a specific age range, but age is nonetheless the most practical way to define this group. The United Nations defines this group as persons between 15 and 24 years of age. While recognizing the complexity of the concept of youth and acknowledging the fact that formal age-based definitions of youth vary across regions, this report uses the United Nations parameter when dealing with statistical data in order to ensure comparability. See box 1.1 in chapter 1 of the main report for further details.

This report focuses on rural youth, who make up around half of the total youth population in developing countries. Three additional facts should be borne in mind in this connection. First, in all developing countries, young people make up a larger share of the rural population than of the urban population, and youth issues are therefore especially relevant in rural areas. Second, although the world's two biggest youth populations are in China, an upper-middle-income country, and India, a lower-middle-income country, the majority of countries with large rural youth populations are low-income nations with high poverty rates (see figure 1.1 in chapter 1 of the main report). Most of these countries are in sub-Saharan Africa and Asia, where the large percentage of the population composed of young people, the large number of young people in absolute terms and widespread poverty pose formidable challenges for countries that want to invest in a better future for their citizens at a time of great transition.

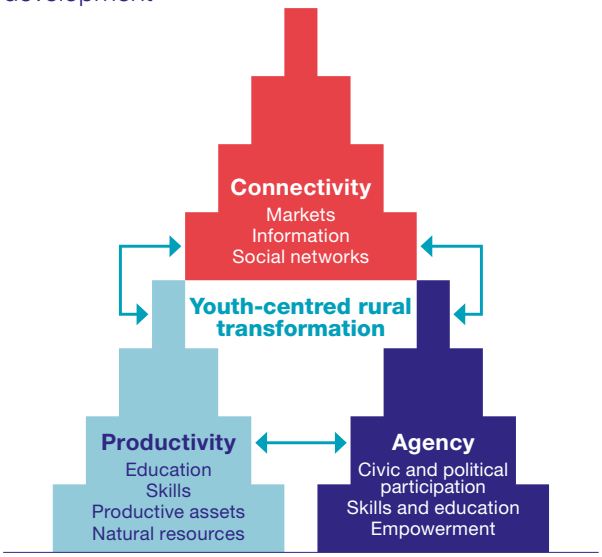
Three foundations for rural youth development: productivity, connectivity and agency

Youth-inclusive policies and investments for encouraging rural transformation should be based on the three foundations of rural development: *productivity*, *connectivity* and *agency*. These are the cornerstones of well-being for all individuals and societies. The fact that young people are transitioning into a life that should incorporate these foundational

elements – that they are striving to become productive and connected individuals who are in charge of their own futures – makes these elements an essential consideration when thinking about rural youth development.

Each of these core elements needs to be taken into consideration because each one reinforces the others. Focusing on just one of them will be less effective than focusing on all three (see **FIGURE B**). Social, political, economic, educational and psychological connections allow youth to accumulate resources and deploy them in ways that increase their productivity and incomes while also generating value for society. Creating these connections requires agency, having a measure of control over one's decisions and trajectory in life. Connectivity and agency will make a greater contribution to productivity in an enabling environment that supports and rewards youth initiative through effective policies and institutions and that provides young people with health care, education and infrastructure. An effective rural youth policy and investment agenda includes a broad set of the actions that are necessary in order to promote the development of a population of rural youth who are productive, connected and in charge of their futures.

FIGURE B Foundations of rural youth development



Source: Authors.

Productive

The productivity of rural young people is central to their well-being and to the broader development and prosperity of society. "A country's ability to improve its standard of living over time depends almost entirely on its ability to raise its output per worker", as Paul Krugman noted in *The Age of Diminished Expectations* (Krugman, 1994). Productivity depends on the quality of the environment that people work in and on the level of people's skills and learning. Learning is more than schooling, as discussed in the *World Development Report 2018: Learning to Realize Education's Promise*. Learning can be improved if governments make it a priority and take heed of the evidence, which indicates that all stakeholders in the educational ecosystem need to be aligned in order for the system as a whole to work for learners (World Bank, 2018). Supporting improved learning is particularly important in the case of rural youth, especially young rural women, who tend to lag behind the rest of the population. Better learning outcomes among rural youth embedded in a supportive environment will play a direct role in boosting their productivity and will also improve their sense of agency, thereby feeding into a virtuous spiral of improving welfare (see, for example, Brady et al., 2007).

Connected

Connectivity – to people, markets, services, ideas and information – creates opportunities for rural youth to become more fully integrated with their transforming economies, which increases their productivity. For instance, rural areas that are better connected to markets through information flows and good transport infrastructure offer more opportunities for

commercializing products and services. There is a great deal of potential for shortening the distances between rural areas and their markets by increasing both physical links (infrastructure) and digital connectivity (mobile technology) in many developing countries. In sub-Saharan Africa, for example, almost half the young population lives in the most remote and least connected areas (according to WorldPop project data).[iv] Greater connectivity also offers young people a way to build and strengthen their social and human capital, develop skills and boost their self-confidence, thus enhancing their sense of agency and increasing their productivity.

In charge

In order to become more productive and connected, young people in rural areas must have the power to make decisions in their own best interest. While agency is important for everyone, it is especially critical for the successful inclusion of youth in the rural transformation process, since rural youth tend to be excluded more than urban youth or adults are (Trivelli and Morel, 2018). The rapid pace of change today, while providing opportunities to enhance agency, can also be challenging for rural youth, especially for those young people who are facing multiple layers of exclusion. For example, young rural women's sense of agency cannot be developed only by increasing their resources and social positions, their voice and aspirations, because social norms that constrain them will also need to be addressed by changing the attitudes and expectations of their family and society (Van den Broeck and Kilic, 2018; Doss et al., 2018). Poor infrastructure and educational systems and weak sociopolitical structures and institutions can also impede the development of agency.

In context

Individual characteristics clearly influence youth productivity, connectivity and agency. Yet the pay-offs for these characteristics, and the set of characteristics that young people need, depend on the context in which they operate. In particular, there are two aspects that require special attention. The first is the overlapping national, local and family settings in which youth live, learn and work. The intersection of these settings – the level of transformation attained by the national economy and society, the potential productivity and connectivity of the particular area they live in and the capacities of their families – will largely determine the opportunities available to rural youth. The second aspect has to do with the fact that rural youth must contend with a rate of change and with types of changes that are dramatically different from what previous generations experienced. In addition, it is important to identify the particular constraints associated with young people's transition from youth and dependence to adulthood and greater independence. An effective rural youth policy and investment agenda must take into account the particular overlapping settings in which a young person lives and how the dynamics of global change are playing out in those settings. Given the transitional nature of youth, it is also important to determine if and in what particular ways the challenges for them, and therefore the policies and programmes needed to help them, may differ from those faced by the general rural population.

Overlapping settings at the national, local and household levels

A country's level of structural and rural transformation sets the basic parameters of the opportunities open to rural youth by broadly determining the material welfare that rural youth might realistically attain and the structure of opportunities through which they can do so. Generally speaking, as the structural transformation process proceeds, people become more likely to earn their incomes outside the agricultural sector by engaging in wage labour or entering into other formal employment relationships rather than through self-employment. This process is both driven by, and contributes to, rising productivity and incomes throughout the economy (IFAD, 2016).

Understanding the national, local and family settings in which young people live entails understanding the concept of rural transformation, which is the rural manifestation of an economy's broader structural transformation.

Rising incomes lead consumers to spend an ever-greater share of their income on non-food items, even as the absolute level of spending on food increases (Engel, 1857). This leads to two kinds of shifts in labour. First, it drives a sectoral shift as labour moves off the farm and into a wide range of non-farm activities, although many are still linked to agriculture (IFAD, 2016). Rural areas become more productive, income levels rise and a more diversified set of farm and non-farm economic activities takes shape. Meanwhile, agricultural activities begin to make greater use of external inputs, produce more for the market and achieve dramatic increases in farm productivity.

In the initial stages of the transformation process, the sectoral shift in labour is mostly a shift from self-employment on the farm to self-employment off the farm in informal household enterprises. But as incomes rise and markets expand, firms begin to appear that are capable of hiring people, putting them to work while also bringing in new technology (capital) and expanding their production. By boosting overall productivity, these firms become key agents in rural transformation. And this drives the second kind of shift in labour: a functional shift from self-employment to wage employment. This transformation of employment is a fundamental characteristic of structural and rural transformation (IFAD, 2016). The overall transformation of the rural economy affects rural youth by influencing both the level and kinds of opportunities available to them and by helping to determine the types of financially viable policies that will be assigned the highest priority.

Structural and rural transformation on a national scale

The national setting in which rural youth live – the national economy and polity – is of fundamental importance for two reasons. First, decisions about policies, programmes and investments are primarily adopted at the national level, and these decisions can have major effects on the opportunities open to rural youth. Second, a country's level of structural and rural transformation broadly determines the level of material welfare that young people may realistically attain and the structure of opportunities for pursuing that objective. Simply put, national economies at a less advanced stage of transformation offer a narrower range of opportunities that are more closely linked to farming and that generally yield low returns. As an economy transforms, the range of opportunities expands, fewer of these opportunities will be directly related to farming and the potential returns are greater.

Structural transformation is frequently measured by the share of non-agricultural activity in GDP, while rural transformation can be measured by agricultural value added per worker (IFAD, 2016). Countries experience different combinations of structural and rural transformation as their overall transformation process proceeds (see **FIGURE C**). In some – ones with larger natural endowments and public policies that support agriculture – the rural transformation process will progress faster than their overall structural transformation will (countries in quadrant III). Others have achieved a broader structural transformation even while retaining a small-scale, labour-intensive farm sector that yields relatively low returns (quadrant I). Some countries have advanced in both dimensions (quadrant II) and, in still others, a structural or rural transformation process has barely begun (quadrant IV). The patterns of structural and rural transformation depicted in **FIGURE C** have implications for the kind of rural youth policies and programmes that countries can or should pursue.

Many different patterns correlate strongly with the level of transformation that a country has achieved. Broadly speaking, in the most highly transformed economies

FIGURE C Structural and rural transformation processes at the national level set the basic parameters for rural youth opportunities

Country transformation typology

Notes: APR: Asia and the Pacific; LAC: Latin America and the Caribbean; NEN: Near East, North Africa, Europe and Central Asia; SSA: sub-Saharan Africa. Countries are classified as having attained a relatively high degree of rural transformation if their value added per worker exceeds the sample median (US$1,592) and as having attained a relatively high degree of structural transformation if the share of non-agricultural value added exceeds the sample mean (80%). The sample consists of 85 low- and middle-income countries as defined by the World Bank (2018).
Source: Authors.

(quadrant II), non-farm income represents a larger share of total income, the farm sector has higher productivity rates, and average income levels are higher. Their populations are made up, on average, of a smaller proportion of youth (18 per cent) and a larger proportion of urban residents (65 per cent), with the result that the proportion of rural youth is much smaller (7 per cent). They also tend to have stronger institutions and more fiscal resources per capita. As a result, even the very populous countries in this category, such as Indonesia, have more resources to invest in youth, a greater capacity for programming and using those resources, and fewer rural youth to focus them on. If the political will is there, these countries can often make great strides by investing in their rural youth. Most of these countries are in Latin America and the Caribbean and in the Near East and North Africa; Namibia, South Africa and Eswatini are the exceptional cases in sub-Saharan Africa.

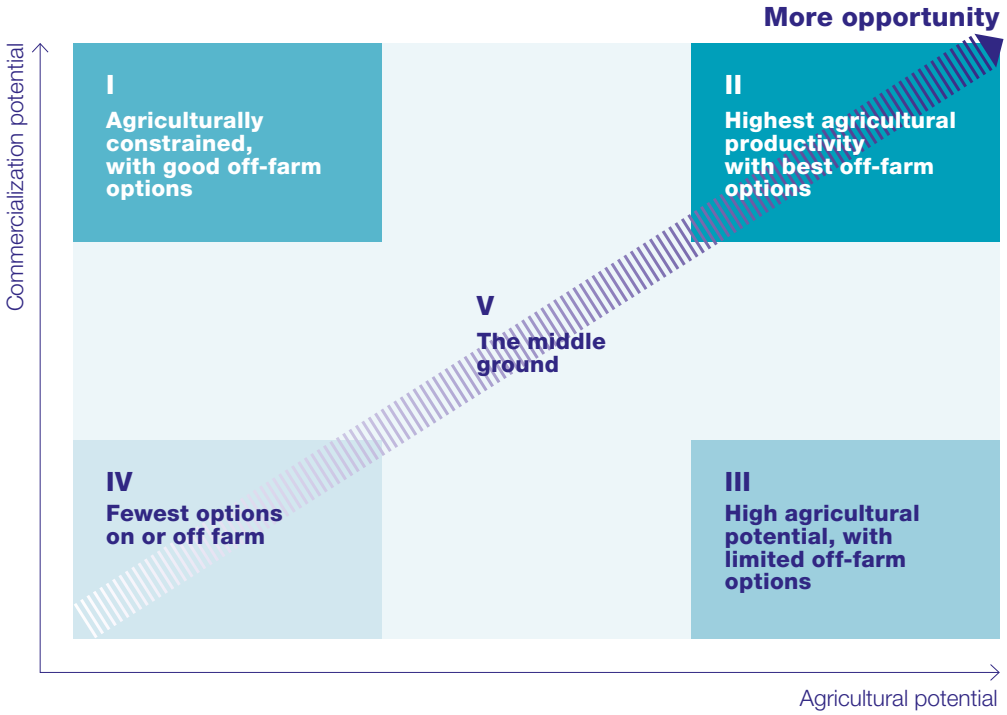
The situation is quite different for the least transformed economies (quadrant IV). These countries have average rural poverty rates of around 50 per cent and per capita incomes only one tenth as high as those found in the most highly transformed economies. While the frequency of conflicts in the quadrant IV countries is similar to what it is in other types of countries, because of the former's weak institutional structure and governance, they are far more likely to be what the World Bank classifies as fragile States. Most of these countries are in sub-Saharan Africa, although some are in Asia and the Pacific. These countries have the largest share of young people overall (20 per cent of the population) and in rural areas (13 per cent, which is nearly double the proportion seen in the most highly transformed countries); they also have the fewest fiscal resources and the weakest investment capacities (see figure 2.1 in chapter 2 of the main report).

The rural opportunity space

Within a country, rural youth opportunities vary by location. While an economy may be experiencing structural and rural transformations at the national level, not all areas within the country will be changing at the same pace. In rural areas, opportunities are largely determined by the extent of market access (agricultural output, input, labour, finance and other markets), which is what, in turn, determines the area's *commercialization potential*, and by the nature of the natural resource base, which is what, in turn, determines the *potential agricultural productivity* of the area. Both of these factors have strong spatial dimensions (Wiggins and Proctor, 2001; Ripoll et al., 2017) and together they form the *rural opportunity space* (see **FIGURE D**). This economic geography framework shapes what is possible for rural youth, independently of the local context, specific social norms or individual preferences (Sumberg et al., 2018).

Commercialization potential increases with connectivity to cities and markets and with the potential for private sector investment, all of which are of crucial importance in extending opportunities to rural youth. Promisingly, rural towns and secondary cities closer to rural areas are growing faster than more distant capital cities (Roberts and Hohman, 2014). This expansion of secondary cities and towns has had a greater impact in terms of poverty reduction than has the growth of large metropolitan areas because these smaller cities and towns offer more accessible migration destinations for rural residents. Such urban centres are playing an increasingly central role in the welfare of rural areas (Tanzania is one example) and in the generation of more inclusive growth patterns (as in India) (Christiaensen, De Weerdt and Todo, 2013; Gibson et al., 2017).

FIGURE D The commercialization potential and agricultural potential of a particular rural area condition the opportunities that the national setting provides for rural youth



Source: Authors.

Yet physical and virtual connections between these urban centres and rural areas are often poor. The formation of many of the requisite connections depends both on the availability of public goods, such as improved roads and communications infrastructure, and on private investment. Increasingly, the private sector is providing mobile technology, post-harvest facilities and processing capacity, and agricultural inputs in rural areas. Public goods such as improved roads, well-designed legal and regulatory systems and an educated populace are, however, prerequisites for large-scale private investments. A more productive economy and better spatial connections within it will increase the pay-off on investments that specifically target rural youth. Sustained growth and structural transformation are typically associated with a public commitment to investment in health, education and infrastructure (World Bank, 2018). As a result, in countries that are making these investments, their more educated and skilled young people will have more opportunities for productively employing their skills and more agency in seizing those opportunities.

Commercialization potential combines with agricultural production potential to shape the opportunities and constraints encountered by rural youth within the framework of their national setting. Agricultural productivity drives rural transformation and, with it, the sectoral and functional distribution of opportunities for rural youth. While agricultural production potential can be measured in different ways, vegetation

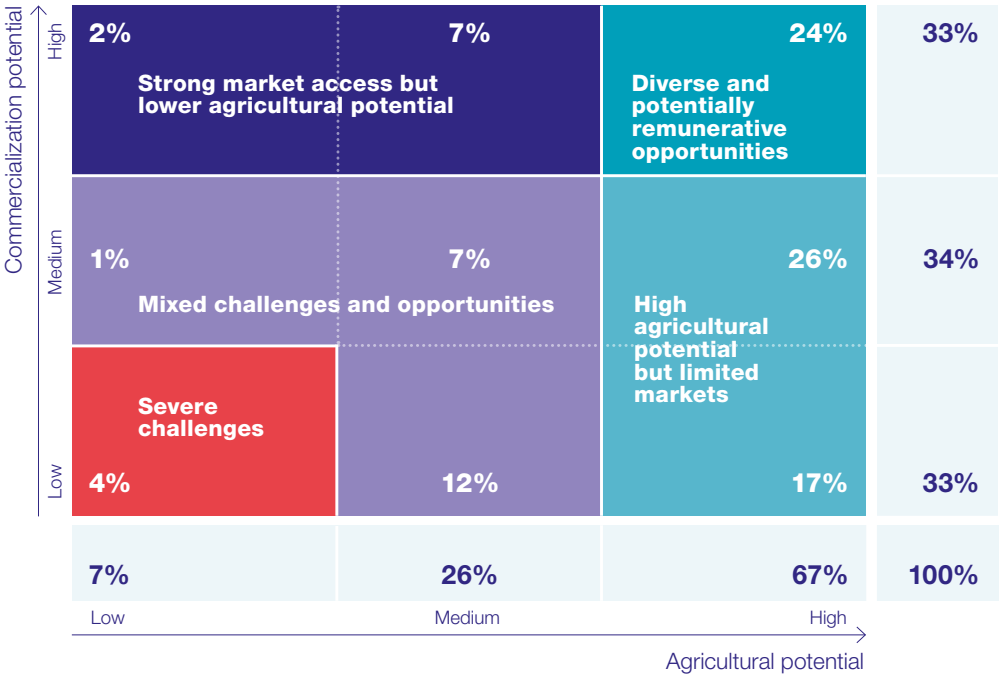
indices based on remote sensing data (such as the Enhanced Vegetation Index (EVI)) are increasingly being used as a proxy to facilitate global comparisons (Jaafar and Ahmad, 2015; Chivasa et al., 2017). For the same reasons, spatially explicit global population data are being used to compute population density for use as a proxy for commercial potential. Combining this with the EVI (excluding built and forested areas) generates an empirical estimation of the rural opportunity space.

A rural opportunity space analysis shows that only 7 per cent of rural youth live in the areas with the lowest agroecological potential (see **FIGURE E**, first column), while 67 per cent live in areas with the highest agroecological potential (see **FIGURE E**, third column). This spatial pattern suggests that agricultural potential per se is not a primary constraining factor for a majority of rural youth. Thus, if this group's farming productivity is low, the reason lies in a lack of access to the necessary markets, both for inputs (especially improved seed, fertilizer and water) and for outputs (whose sale would provide incentives for investing in productivity gains).

One quarter (187 million) of the 778 million rural youth according to the broader definition used in this report live in areas that have both the highest agroecological potential and the highest commercial potential (i.e. they are in the diverse opportunities space, depicted in the following figure in the top right-hand cell).[v] These areas (for example, in Bangladesh, Egypt and Ghana) offer diverse and potentially remunerative opportunities. At the other extreme, only 4 per cent of developing-country youth live in the severe challenges space (i.e. areas that have the lowest agricultural and the lowest

FIGURE E Two out of three rural youth in developing countries live in rural opportunity spaces with high agricultural potential

Modified rural opportunity space



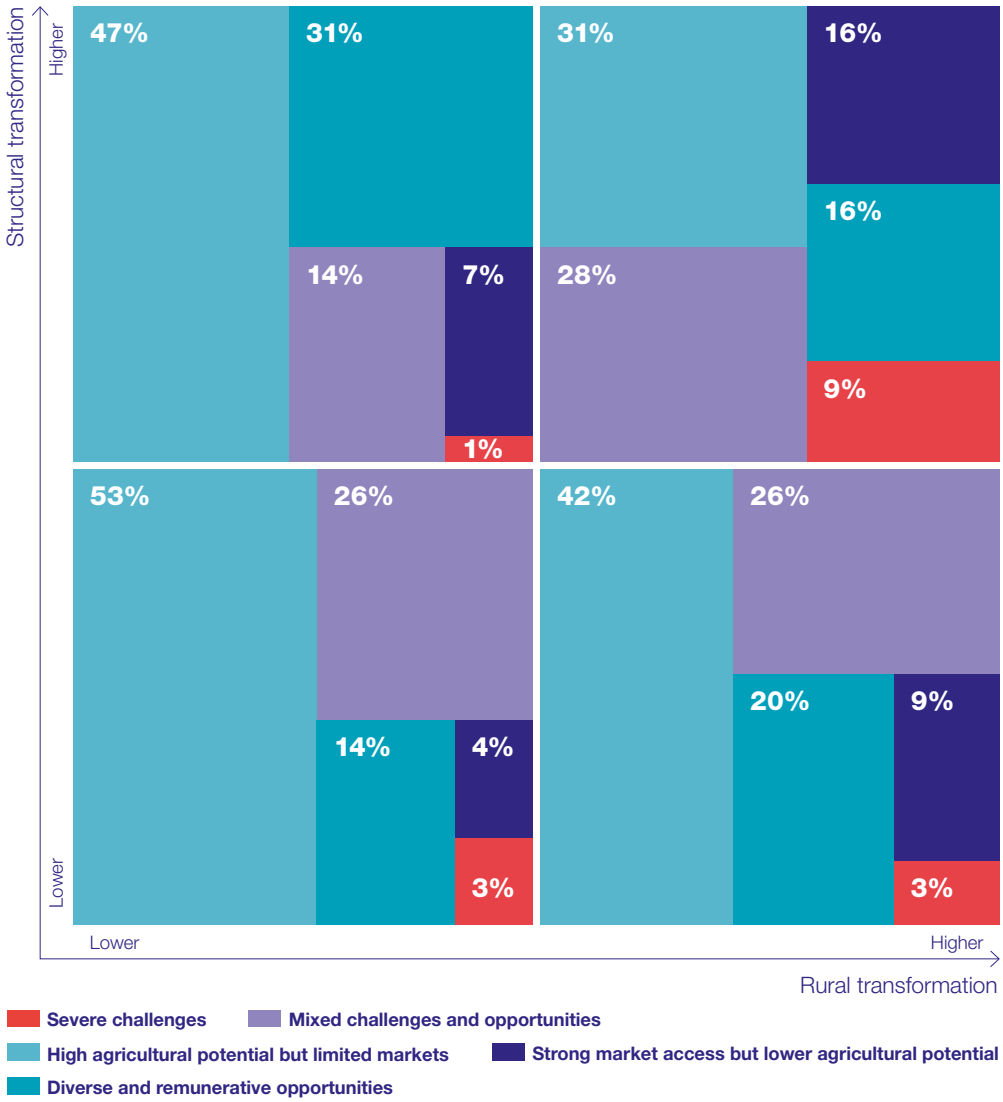
Note: The dataset covers 85 low- and middle-income countries (based on World Bank definitions of these categories and data for 2018).
Source: Authors' calculations based on spatially disaggregated population data from the WorldPop project and data from the EVI of the Moderate Resolution Imaging Spectroradiometer (MODIS) of the National Aeronautics and Space Administration (NASA). A detailed description of data and methodology can be found in chapter 2 and annex B of the main report.

commercial potential, as shown in the left-hand cell). Investments in rural youth in these very different parts of the rural opportunity space should therefore be differentiated in order to be effective in making rural youth part of the rural transformation process.

Combining the country transformation typology with the rural opportunity space classification provides a framework for establishing policy, investment and programmatic priorities for helping rural youth become productive, connected and in charge of their own futures (see **FIGURE F**). Two patterns are particularly notable.

FIGURE F The least transformed countries have the largest share of their rural youth population in areas with high agricultural potential. The most transformed countries face the biggest challenge in terms of youth in isolated, low-potential areas

Youth prevalence across the modified rural opportunity space, by country transformation space



Notes: The dataset covers 85 low- and middle-income countries (based on the World Bank definitions of these categories and data for 2018). The sample includes only non-urban areas (rural, semi-rural and peri-urban areas).
Source: Authors' calculations based on WorldPop, EVI and World Development Indicators data.

First, young people who are facing the greatest geographical challenges – those living in the "severe challenges" and "mixed challenges and opportunities" spaces – mainly live in the most highly transformed countries. In fact, across all developing countries, two thirds (65 per cent) of the 28 million rural youth residing in areas where they face severe challenges live in the most highly transformed countries. This group is also most prevalent in the most transformed countries, at 9 per cent of all rural youth. In the least transformed countries, they constitute only 3 per cent of rural youth. The extent of the "severe challenges" space in the most highly transformed countries reflects the existence of small pockets of persistent poverty, rather than widespread poverty. Ghani (2010) refers to this as the "lagging region" problem.

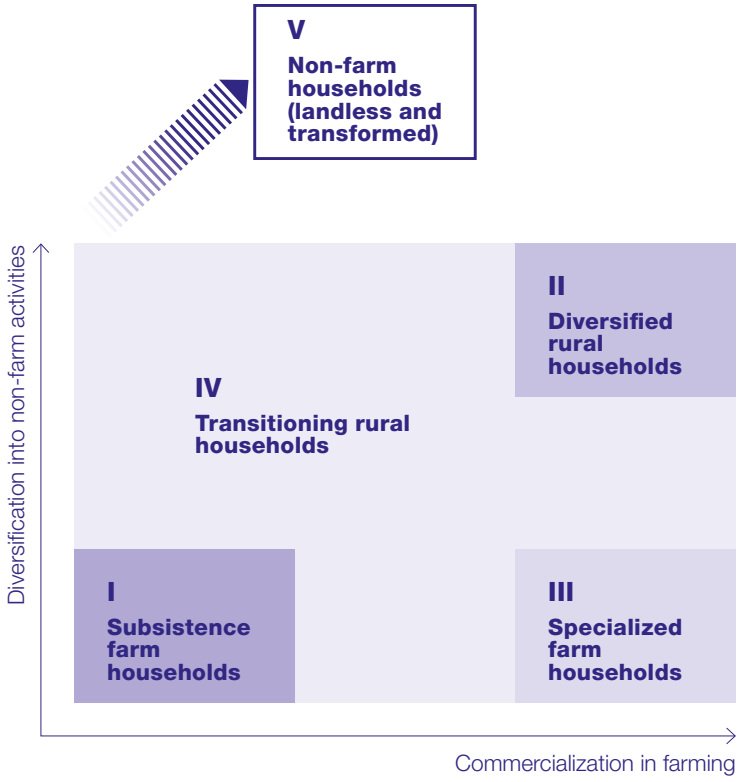
Second, in the least transformed countries, more than half of all rural youth are living in the "high agricultural potential but limited market access" space. Since these countries are also the most dependent on farming, this pattern points to the existence of a great unrealized potential for agricultural productivity growth that could be harnessed if access to output and input markets can be improved.

Household transformation categories

The vast majority of rural youth in developing countries live as dependants in large families. Thus, in addition to the level of transformation of the national economy and the rural opportunity space in which young people reside, the characteristics of their households will also influence their set of opportunities and challenges.

Rural households, like nations, achieve differing levels and mixes of transformation depending on their livelihoods (see **FIGURE G**). Connections to a wide range of markets are required to permit these transformations. Households can diversify beyond the farm to add non-farming income to their portfolio (vertical axis), and some of them leave farming altogether and become fully *transformed non-farm households*. Alternatively, they may invest in their farming activities in order to make them more productive and more market-oriented, with some of them then becoming *specialized farmers* who make a large share of their sales directly from their farming operations and have little off-farm income. Households may also undergo transformations in both

FIGURE G Household transformation categories



Source: Authors.

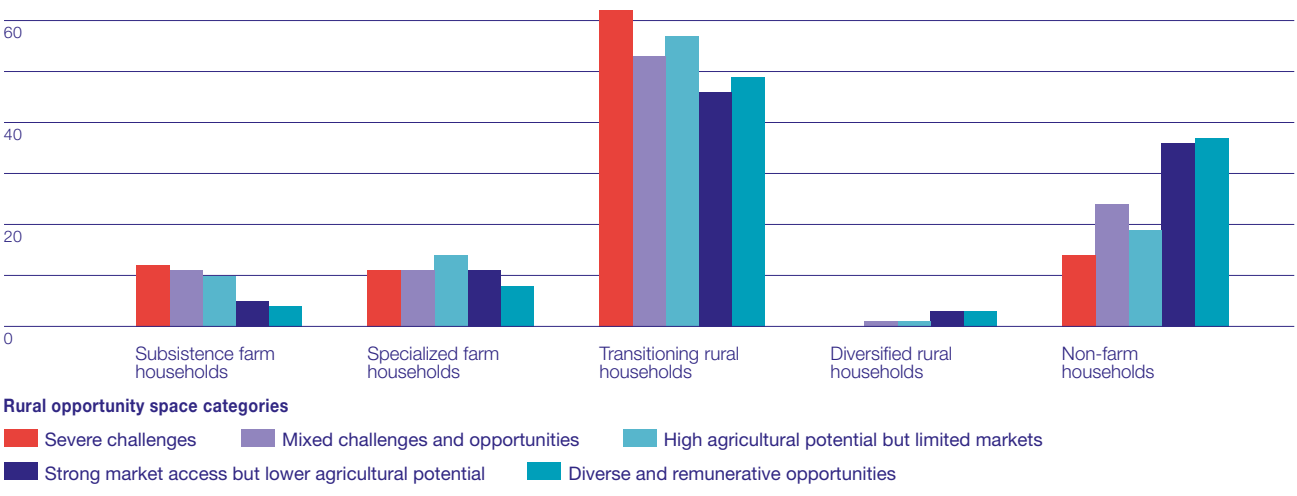
dimensions, intensifying their farming activities and selling much of their output while, at the same time, adding more non-farm income to their portfolios. Those moving the furthest in each of these directions become dynamic *diversified rural households*. Others continue to operate as *subsistence farmers*, who have little non-farm income and sell very little of their farms' output. Perhaps the most challenged group of all are the households that have no land and few other resources: the *landless non-farmers*. Households that have partially diversified without moving into any of these groups are referred to as *transitioning rural households*.

The types of households in which rural youth live frame the opportunities that they can actually grasp out of the set of opportunities generated by their national and rural settings. The types of household categories that predominate are presumably influenced by the country's level of transformation and by the rural opportunity space in which households are located. More highly transformed countries provide more opportunities for economic diversification, for the intensification of farming activities and for leaving farming behind and fully entering into rural non-farm employment. Such countries can thus be expected to have a larger proportion of transformed non-farmers, diversified rural households and (perhaps) specialized farmers in their rural areas. Within a country, more connected rural spaces (those offering diverse opportunities and strong markets with limited agricultural potential) are likely to have more diversified and fully transformed non-farming households, while less connected settings (those that are mixed, entail severe challenges or have a high agricultural potential but limited markets) will likely feature more subsistence households.[vi]

FIGURE H shows just how resoundingly these expectations are confirmed. As the space offers more opportunities (moving away from the severe challenges corner of the rural opportunity space and towards the diverse and remunerative opportunities corner), the prevalence of subsistence households decreases and that of diversified and

FIGURE H Households engage with the economy based on the opportunities that their rural opportunity space offers

Households across the rural opportunity space, percentage by household type



Notes: The percentages of households within each category of the rural opportunity space add up to 100.
Source: Authors' calculations using household survey data from 12 countries in 3 regions (SSA, APR and LAC) combined with population density data from the WorldPop project and EVI dara of the MODIS (NASA) at the enumeration area level.

fully transformed households increases. While there are almost no diversified rural households in the severe challenges space, they are three times more prevalent in the diverse opportunities space and the space in which there are strong markets with lower agricultural potential (the two spaces with the greatest commercial potential) than in mixed spaces and in spaces having a high agricultural potential but limited markets.

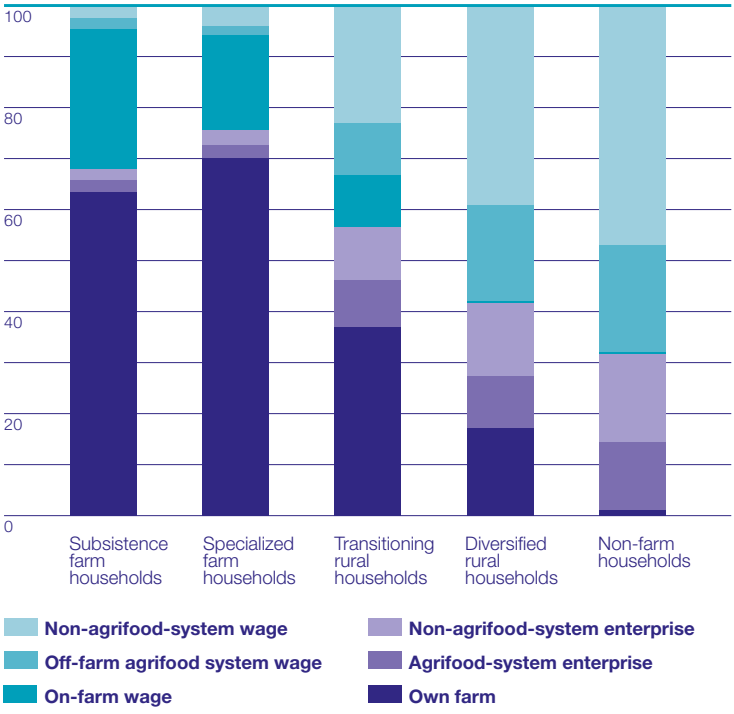
Fully transformed non-farming households – rural households that have left farming – are slightly more common in the highest opportunity space (diverse opportunities) than in the second-highest (strong markets with lower agricultural potential). This suggests that, faced with the same level of market connections (all those in the top row of **FIGURE E**), more of these households choose to specialize in the non-farm economy than to diversify both on and off the farm. This is consistent with broad evidence that off-farm engagement in rural areas is strongly associated with higher incomes (Haggblade, Hazell and Reardon, 2007).

In general, diversified rural households and fully transformed non-farming households – regardless of the transformation levels of the local rural space and the broader national economy – are able to provide their young people with more opportunities. Households in these categories have the lowest poverty rate and the largest share of young people with a secondary education.

What rural youth do depends on what the other members of their households do, but only in part. The basic pattern is one in which young people divide their time between on-farm and off-farm activities in very much the same way as their families do, but they clearly diverge from that pattern when it comes to the kind of non-farm work that they perform. In subsistence farming households, specialized farming households and transitioning households, rural youth devote most of their working time to their household's own farm and to farm wage work. Those residing in households that are less oriented towards farming (diversified rural households and fully transformed non-farming households) work predominantly for wages off the farm (see **FIGURE I**). Rural youth in landless non-farming households are the group that devotes the most working time to on-farm wage labour. These patterns mirror the activities of the youths' households.

FIGURE I What rural youth do depends, but only in part, on what the other members of their households do

Distribution of rural youth work effort, by functional and sectoral employment categories, percentage of full-time equivalents



Notes: Non-farming households include landless households that rely on farm wage work (less than 1 per cent of the total) and fully transformed households that also do not have own-farm income and mostly work for wages off the farm (in and out of the agrifood system – 40 per cent of the total).
Source: Authors' calculations using data on 128,227 individuals representing around 134 million rural youth in 12 countries in Asia and the Pacific, Latin America and the Caribbean, and sub-Saharan Africa.

The divergence of young people's off-farm labour patterns from those of their households is quite clear. To a much greater degree than older household members, they consistently engage in off-farm wage work (primarily in the agrifood sector) and engage much less in any kind of enterprise work. This likely reflects their limited access to the assets and capital needed to start a business, which is to be expected, given the transitional life cycle phase that they are in. The rural transformation process, in the agrifood sector as elsewhere, is increasingly connecting areas along the rural-urban continuum; hence the importance of youth-centred investments in the agrifood sector that will create employment opportunities.

Constraints hindering the transition from dependence to independence

While the opportunities open to rural youth depend on the corresponding national, rural and household settings, creating broad opportunities in these settings does not guarantee that rural youth will be able to seize them. In order to do so, rural youth who are transitioning from dependence to independence must have certain capacities, skills, financial resources and key assets (such as land) in order to be able to seek out opportunities and take advantage of them. Social norms and local circumstances (agrarian dynamics and the policies and institutions that underpin them) also determine how rural youth "read" opportunities (Sumberg et al., 2018). This is doubly true of young rural women, who often face social constraints that prevent them from pursuing capacities and connections that would enable them to take charge of their own lives. Rural youth from ethnic minorities or other marginalized groups may similarly face more severe constraints than members of the dominant ethnic group.

Capacities and skills

Rural youth need capacities and skills that are very different from those of their parents. The nature of work is changing faster than ever before, creating a demand for new sets of skills. Rural transformation, particularly of the agrifood system, is extending the reach of markets into new areas, linking rural and urban areas and fuelling competition for outputs from farms of all sizes. The digital revolution is making access to information increasingly central to success both on and off the farm. Young people need to understand the modes of communication that are embedded in these applications and to know how to search for information and create networks of contacts.

Rapid technological progress is also reshaping the future of work by increasing the demand for the types of human capabilities that cannot be fully mimicked by machines (World Bank, 2018). In order to adapt to these complex demands, educational institutions have to teach not only basic technical skills but also advanced cognitive skills (critical thinking and problem-solving) and the non-cognitive skills needed for successful youth employment (Fox, 2018; Filmer and Fox, 2014; World Bank, 2018). Non-cognitive skills include personality traits such as conscientiousness, extraversion, agreeableness and openness to experience. Evidence is emerging on the importance of these skills in both wage employment and self-employment and in the establishment of microenterprises in rural and other areas in developing countries. These skills,

together with cognitive skills, are strongly linked to employment and earning outcomes (Heckman and Kautz, 2013).

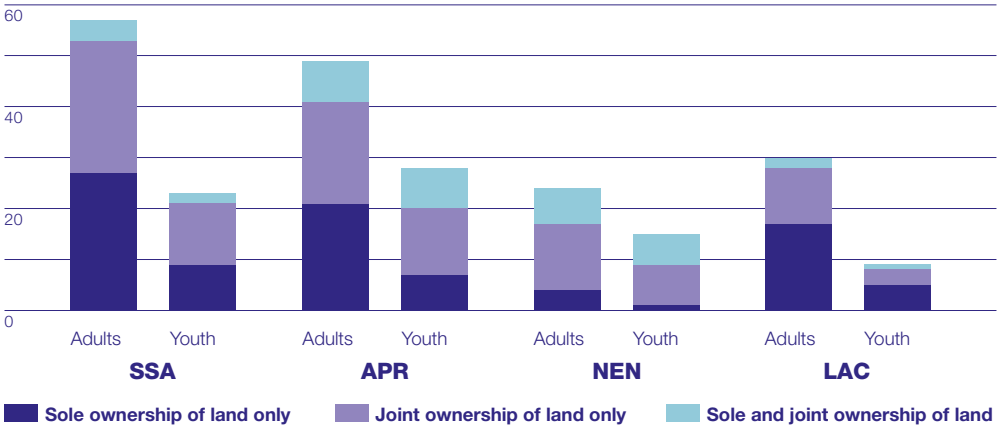
Land

Young people in rural areas who wish to become farmers have always faced the challenge of gaining access to land, but three factors now make this challenge even more formidable. First, owing to rapid population growth, particularly in sub-Saharan Africa, much of the rural population now lives in more densely settled areas. Land is becoming less available, and plots are becoming smaller and more fragmented. Second, parents are living longer and are continuing to farm their land for a longer time, and they are therefore less likely to transfer land to their children when their children are entering the labour force. Children who want to farm can thus either work their parents' land, thereby delaying their transition to independence and their attainment of greater decision-making authority, or, if their finances and local rental markets allow, they can rent land. If they rent, issues of land quality and tenure security become a concern (Yeboah et al., 2018). Third, the rapid rise of medium-scale commercial farms, driven by the expansion of markets made possible by the structural and rural transformation processes, is increasing the competition for land. Such farms control an estimated 30 to 50 per cent of the farmland in Ghana, Kenya, Malawi and Zambia (Jayne et al., 2016). As a result, young people are significantly less likely than adults to own land, and they are even less likely to have sole title to it (see **FIGURE J**). In sub-Saharan Africa, around 1 in 3 adults is the sole owner of a plot of land, while this is true of fewer than 1 in 10 young people.

While climate change is expected to worsen the land constraints faced by rural youth (see chapter 7 of the main report), the digital revolution can offer opportunities that facilitate access to land registries and rental markets (see chapter 8 of the main report). Targeted investments can address such challenges and tap into the opportunities presented by the dynamics of change.

FIGURE J Rural youth own less land either solely or jointly than adults

Types of land ownership by adults and youth, percentage by region



Notes: SSA: sub-Saharan Africa; APR: Asia and the Pacific; NEN: Near East, North Africa, Europe and Central Asia; LAC: Latin America and the Caribbean.
Source: Authors' calculations based on Demographic and Health Survey (DHS) data from 42 countries.

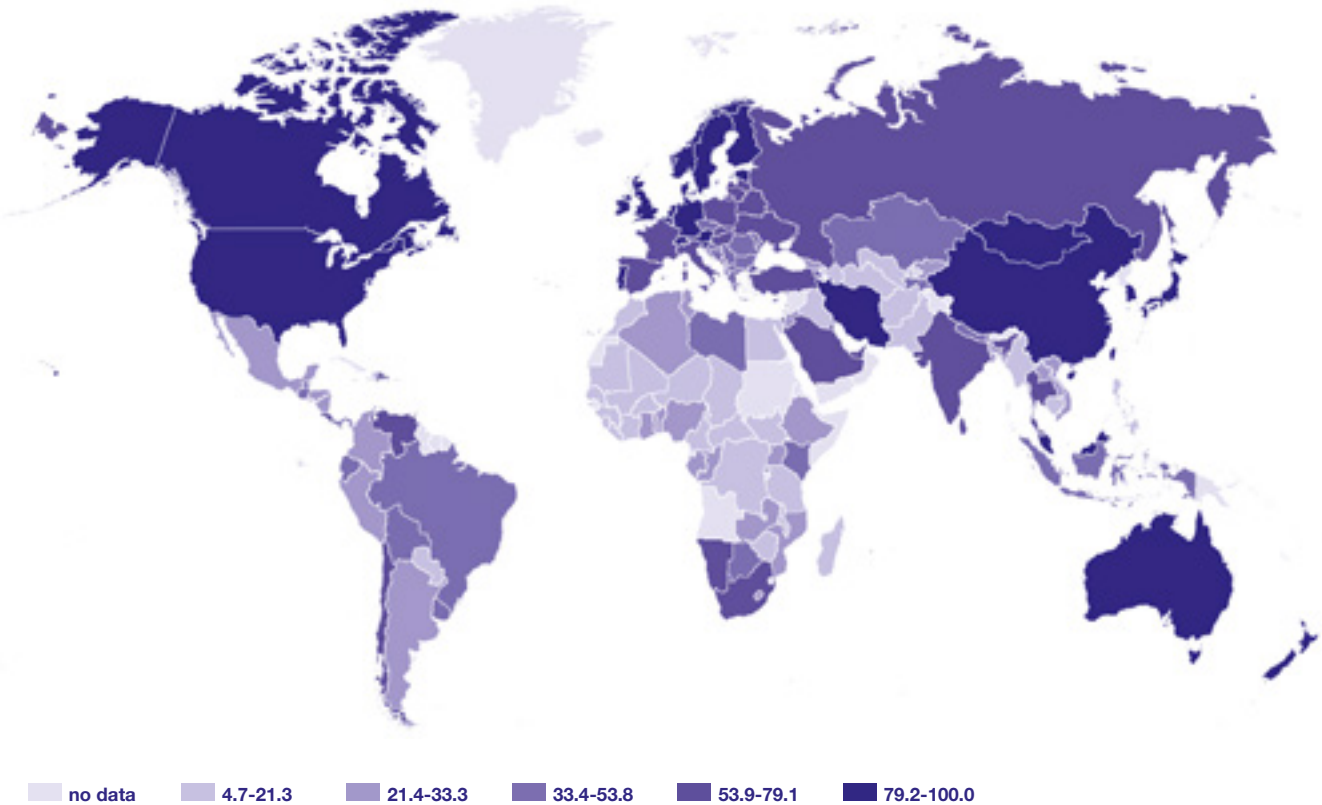
Finance

Access to finance is more important in today's transforming economies, and rural youth face greater challenges in this regard. The profitability of farming increasingly depends on the use of purchased inputs, especially when producing for dynamic markets, such as fresh produce for growing cities. Access to credit can ease entry into such markets (Tschirley et al., 2017). Entry into off-farm self-employment also requires some initial investment, and operations can be greatly enhanced by access to credit. Young people have fewer contacts and assets and so have more difficulty gaining access to formal financial services. They also make up a disproportionate share of the unbanked population worldwide (see **MAP B**) (Gasparri and Muñoz, 2018). Rural youth are likely to be worse off than urban youth in this respect given the more remote nature of the places where they live.

Yet the digital revolution promises to bring good news on the financing front. Digital financial services such as mobile money can reduce age-related, gender-based and rural-urban gaps in access to financial services (Clement, 2018; Sekabira and Qaim, 2017). Mobile money account penetration is similar in rural and urban areas, and youth have higher uptake rates than adults (Aker, 2018; Gasparri and Muñoz, 2018).

MAP B Youth in developing countries have little access to formal financial institutions

Percentages of youth with an account at a formal financial institution (2017)



Source: World Bank (2017a).

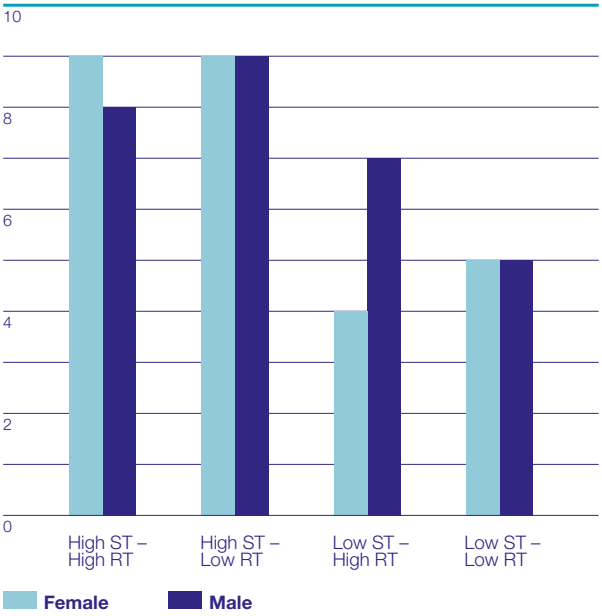
Gender

Young rural women face additional constraints that may hinder them from gaining the agency and thus the extent of productive engagement they need to prosper in the new economy. Economic and technological change often outpace changes in social norms. A young woman with a smartphone in a rural village in Bolivia, Cambodia or Niger has access to information, ideas and possibilities that her parents could not have dreamed of, but social norms may prevent her – more than they would a young man – from acting on these possibilities. There is a greater need than ever before to speed up investments in ways that will lighten the triple burden that such women bear by virtue of the fact that they are young, female and rural.

Economic transformation and economic opportunities shape young rural women's lives and livelihoods as they transition from school to marriage and child-rearing and are then faced with different occupational choices. In less transformed economies, the level of educational attainment is low for all rural youth but lowest for young women (see **FIGURE K**). Levels of education are higher for all rural youth, and no lower for young rural women than for their male counterparts, in countries with higher levels of structural transformation. But rural transformation alone does not appear to narrow the gender gap in education.

FIGURE K Structural transformation reduces the gender gap in education, but rural transformation alone does not

Number of years of schooling, by gender and country transformation category



Note: ST: structural transformation; RT: rural transformation.
Source: Doss et al. (2018) based on Demographic and Health Surveys (DHS) data for 42 countries.

Furthermore, young rural women are only half as likely as young rural men to have sole title to a plot of land, regardless of the level of rural transformation, and they are almost twice as likely as young rural men to neither work nor be in school, in most cases as a result of marriage and child-rearing responsibilities. In India, however, the fact that 25 per cent of young rural women are neither employed nor married or raising children would appear to point to the presence of structural discrimination against young women's participation in the economy and society (Doss et al., 2018).

The unprecedented rate and nature of change today

Many of the changes accompanying structural and rural transformations are unfolding at a faster pace or in different ways than in the past. These demographic, economic, environmental and technological changes are simultaneously opening up some opportunities for rural youth and closing off others. Investments, policies and programmes centred on rural youth need to take these differences into account.

Demographic change

Three types of demographic change are rapidly altering the national and rural context in developing countries. The first is urbanization. Since 1990, urban populations in low- and

middle-income countries have risen from 33 per cent of those countries' total population to 50 per cent (UNDESA, 2014); this has implications for the level and structure of opportunities and challenges. For example, urban areas now account for more than half of the total domestic market for food in developing countries. Market links to urban areas are thus central to the income and food security of smallholder farmers.

The second demographic change, which is primarily being seen in the least transformed countries, is a rapid increase in rural population density. Even as countries have urbanized, rural populations have more than doubled in developing countries since 1950 and increased nearly fourfold in the least developed nations (UNDESA, 2014). Urbanization (including the rise of secondary cities), rural densification and the growth of rural towns are reducing the literal and figurative distance between urban and rural areas and giving rise to greater opportunities in rural areas thanks to improved connections to markets as a result, among other factors, of increased mobility and migration.

The third major demographic process that is now under way is the demographic transition, which yields a *demographic dividend* that could potentially have long-lasting positive effects in terms of growth and transformation. This process has reached a quite advanced stage across all developing regions except sub-Saharan Africa, where the number of young people is growing very rapidly in absolute terms and is even growing modestly relative to the total population. The challenge for countries in that region is to find a way to address the needs of the world's fastest-growing youth population even though they have the fewest fiscal resources to invest in that generation. The very slow pace of their demographic transition may also hold back their long-term growth (see chapter 5 of the full report).

Digital revolution

Today's rural youth are the first generation of young people whose entire working lives will be permeated by digital technology. By reducing the cost of information and massively increasing its availability, this technology has dramatically sped up the pace and altered the nature of change. This is having two main effects. On the one hand, the rise of the "intelligent automation" made possible by digital technology is speeding and broadening the advance of automation while partially closing off previous avenues, such as labour-intensive manufacturing, used by rural youth to escape poverty (World Bank, 2018; McMillan et al., 2016).

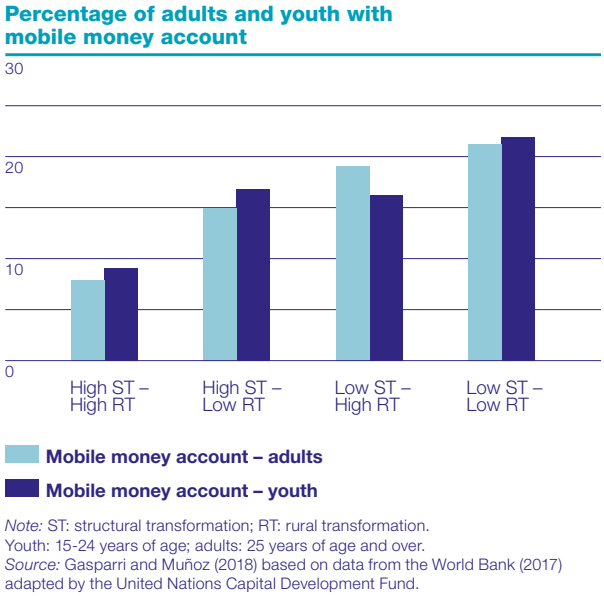
At the same time, however, the penetration of digital technology into all economic and social spaces is opening up new opportunities for rural youth to increase their connectivity, productivity and agency. Digital technologies that reduce information and transaction costs have spread rapidly in developing countries and are narrowing rural-urban and income divides (Aker, 2018). More than 70 per cent of the sub-Saharan population now has mobile phone network coverage (Aker, 2018; Groupe Spéciale Mobile Association, 2017). Leapfrogging traditional financial systems, mobile money has spread more rapidly among youth in less transformed economies than in the more highly transformed nations (see **FIGURE L**), thus providing them with greater access to finance.

Farming and marketing practices made possible by new technologies are increasing productivity in the agricultural sector (Bello, Bello and Saidu, 2015; Noorani, 2015). The rapidly emerging "Internet of things" is opening the way for precision

agriculture, the use of drones to monitor livestock and crops, and "smart greenhouses" that can automate many crop husbandry activities.[vii] Rural youth can profit from these new technologies as investments expand broadband and physical infrastructure in rural areas in ways that increase competition among providers and thus bring down costs. Investments can also be used to equip youth with the cognitive and non-cognitive skills they need to see the promise in the technologies, to anticipate their perils (such as overindebtedness as a consequence of the temptations of easy-access mobile finance) and to use them to their benefit.

The digital revolution will not play out in a vacuum. While its impacts on the changing nature of work and competition are being felt globally as they work their way through the various markets, the *opportunities* that the revolution engenders are in proportion to the *fundamental capabilities* existing in a given location. Rural youth living in countries and spaces in which fundamental capabilities are lacking – poor physical infrastructure and educational systems, socio-political structures that impede agency and empowerment, and weak public and civil society institutions – will have a much harder time capitalizing on the opportunities that this revolution offers. How governments respond to this situation will determine whether the revolution widens or bridges the rural-urban digital divide.

FIGURE L Mobile money provides youth in the least transformed countries with access to finance



Note: ST: structural transformation; RT: rural transformation.
Youth: 15-24 years of age; adults: 25 years of age and over.
Source: Gasparri and Muñoz (2018) based on data from the World Bank (2017) adapted by the United Nations Capital Development Fund.

Climate change

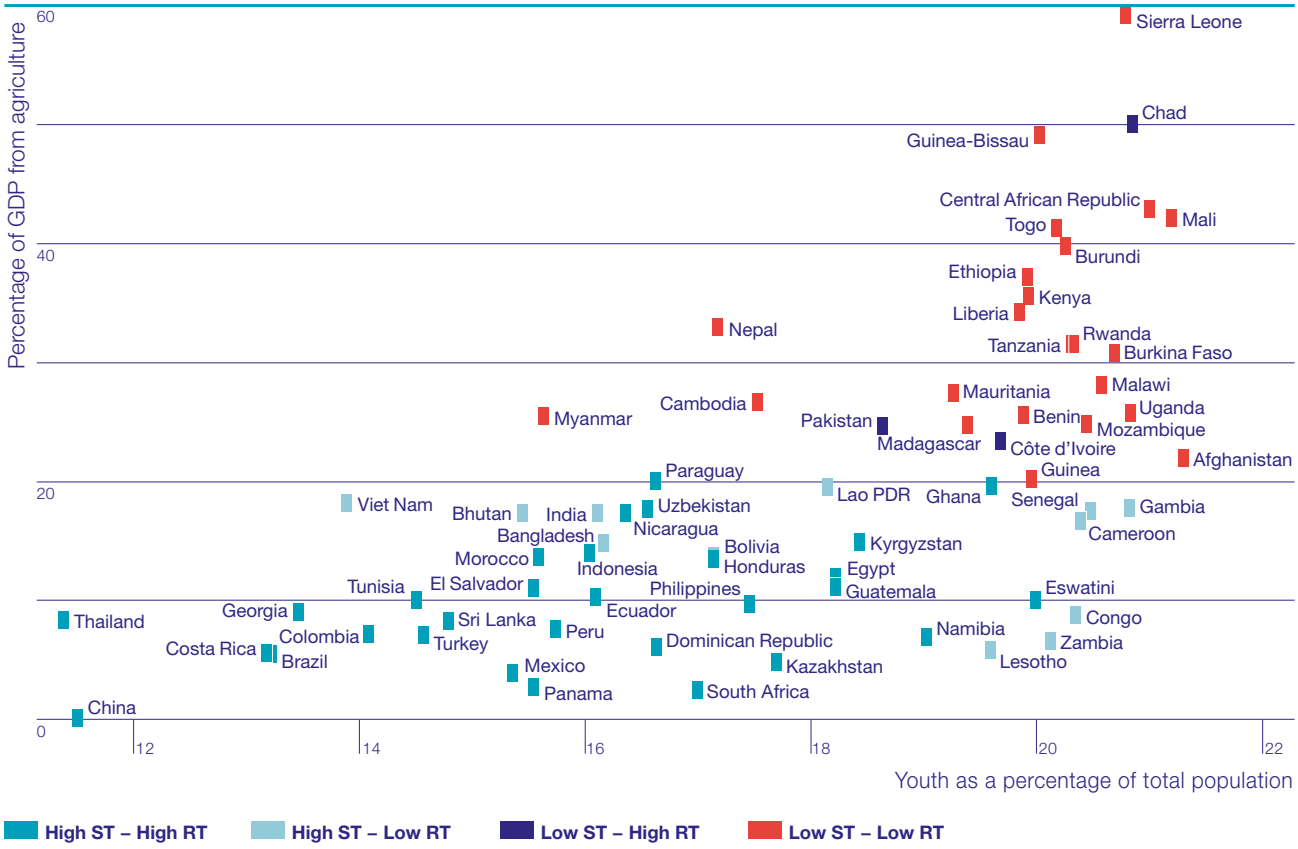
Rural youth are likely to be worse off than the rest of the population in terms of all three of the elements that determine the extent of vulnerability to climate change: exposure, sensitivity and adaptive capacity (Füssel, 2017; Füssel and Klein, 2006; IPCC, 2014). The latest report by the Intergovernmental Panel on Climate Change warns that the world has little time left to take action to avert the devastating impacts of climate change (IPCC, 2018). Addressing the challenges faced by rural youth becomes even more difficult in this context.

Countries with large youth populations are typically poor and still heavily agricultural, which is one of the sectors most directly affected by climate change. Almost all countries that depend on agriculture for more than 20 per cent of their GDP have youth populations equivalent to more than 19 per cent of their total population and low levels of structural and rural transformation (represented by red dots in **FIGURE M**). Countries in West and Central Africa – notably the Central African Republic, Guinea-Bissau and Sierra Leone – are in this position. These countries are also in the midst of post-conflict or fragile situations, making it all the more pressing to address the challenge of youth inclusion.

Climate model projections indicate that many of these countries will be subject to increasing *exposure* to the impacts of climate change, such as extreme heat stress and generally more extreme weather events, which will have an especially strong impact

FIGURE M Countries with the highest proportions of young people also depend heavily on agriculture and have the least capacity for coping with climate change

Agriculture dependency and youth as a percentage of total population



Note: ST: structural transformation; RT: rural transformation.
Source: Arndt et al. (2018).

on rural youth, who have limited options outside of the agriculture sector. *Sensitivity* to climate shocks rises in step with a lack of social capital and skills and in the absence of community participation (Brooks, 2003; Adger, 2009). Finally, *adaptive capacity* depends on access to resources such as land, credit and insurance, again putting rural youth at a disadvantage (Gasparri and Muñoz, 2018; Yeboah et al., 2018).

Thinking differently about investing in rural youth

In the rush to help rural youth navigate today's rapidly changing environment so that they may become productive and connected individuals in charge of their own future, decision makers can make two mistakes. One is to continue to invest in old solutions that are no longer effective in this changing environment. An example could be old-style vocational/technical programmes that do not prepare youth for the new structure of economic opportunities and challenges that is taking shape. A second error is focusing too much

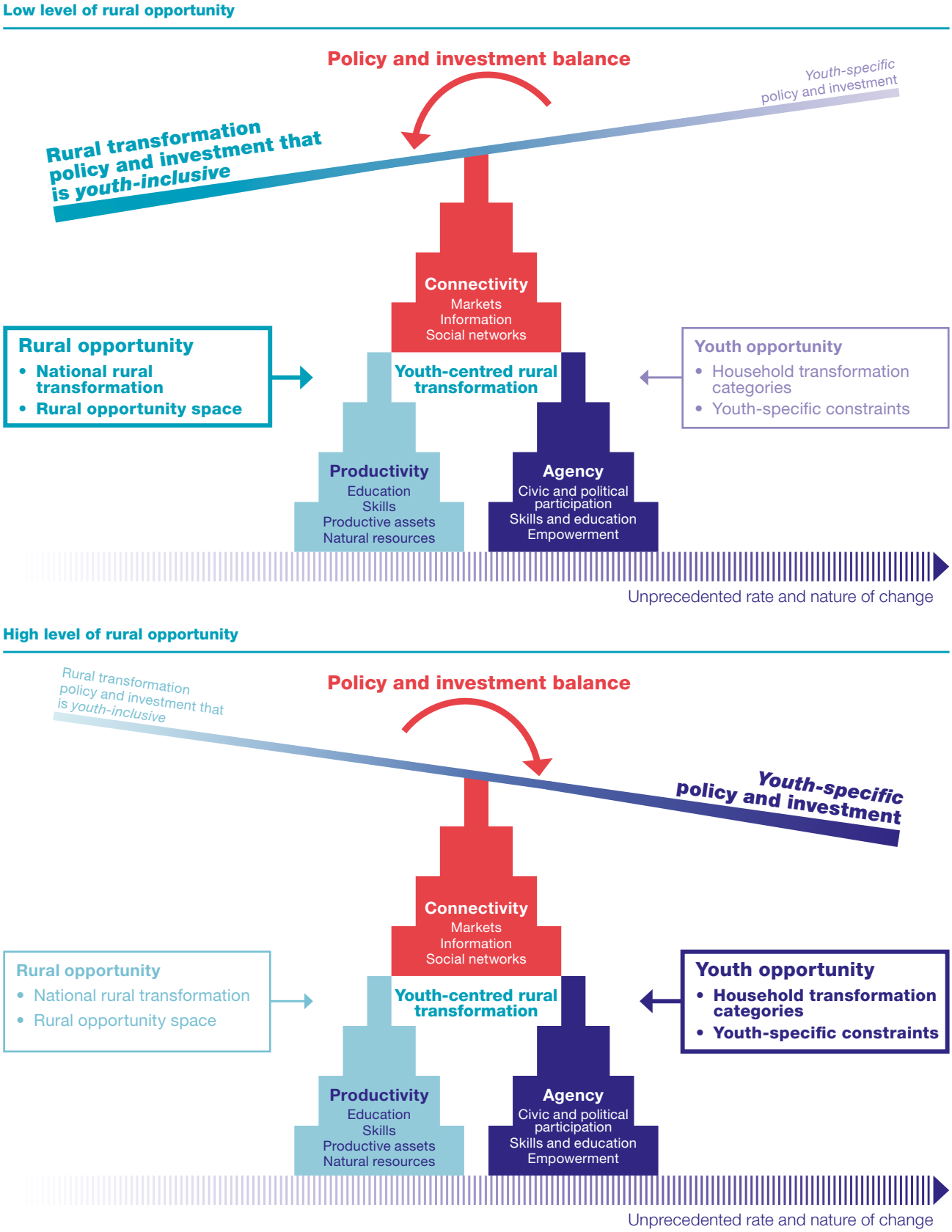
on investments specific to youth in countries and spaces where the primary problem is a broad-ranging lack of economic opportunity that would undermine the effectiveness of these kinds of targeted investments.

The challenge is to find the right balance between investments that promote widespread rural opportunity and those that focus specifically on opportunities for young people (see **FIGURE N**). The best balance between these different kinds of interventions will depend on the extent of the different types of transformation processes and opportunities to be found in a given space. Thus, in places with low levels of transformation and limited opportunities, youth-specific approaches that do not address broader issues are unlikely to produce sustainable results. Therefore, if rural opportunity is limited by a low level of rural transformation in a country or by a limited commercial potential, policies and investments will need to focus primarily on promoting rural transformation. This entails improving productivity, connectivity and agency among the rural population as a whole in order to foster rural transformation and thus expand the opportunities for all. In these types of contexts, youth-related investments should focus on fostering rural youth inclusion in the broader rural transformation process rather than on furthering youth-specific interventions. For example, an investment strategy aimed at enhancing the commercial potential of agriculture in a rural area with a great deal of agroecological potential should focus on ensuring that young people are included in this effort and that they benefit from it.

On the other hand, when rural opportunities already exist because a region has reached a high level of rural transformation and has strong commercial potential, then policies and investments may seek to address constraints that are specific to young individuals and their families. For example, young people may have difficulty securing employment or becoming entrepreneurs in existing productive agricultural value chains, may find it difficult to produce crops for commercial markets due to land constraints, or may be unable to start non-farm businesses due to a lack of access to financial services, as discussed earlier. Investing in broader rural development initiatives continues to be important in these contexts as a means of supporting and enhancing ongoing transformations, but *youth-specific investments* can complement these wider-ranging efforts and help to overcome specific constraints that are impeding the inclusion of the young population.

In summary, creating opportunities for rural youth requires policies and investments that promote rural development in general and rural youth inclusion in particular. The relative emphasis on one or the other type of intervention will depend on the opportunities existing in a given space. When opportunities are scarce for everyone – including youth – the focus should be on expanding those opportunities across the board. This entails fostering a rural transformation process through investments in productivity and connectivity while enhancing the inclusion and agency of young people within that broader transformation process by means of targeted investments. In more highly transformed countries and spaces, where more opportunities exist, investments should be designed to maintain and to continue to expand those opportunities while also tackling constraints that are specific to young individuals and their families in order to enable rural youth to maximize their potential participation in those transformations and to benefit from them.

FIGURE N Balancing investments that promote widespread rural opportunity and those that focus specifically on youth opportunity



Source: Authors.

The unprecedented rate and nature of change and the dynamics that surround the rural youth population are such that their opportunities and constraints are changing rapidly. Policymakers should consider which investments are needed now in order to alleviate constraints on rural youth and which ones will be required later on in order to generate medium-term pay-offs (Filmer and Fox, 2014).

For example, climate change is making the ability to adapt to new production environments crucial to success, thereby creating a demand for the capacity to process complex information about risks and new technologies in order to facilitate that adaptation. The digital revolution, by enabling wider-ranging information exchange, may help youth adapt to climate change. By investing in low-cost access to mobile technology, which in turn gives access to the rapidly updated information available on the web, governments can counter the effects of the decreased capacity of traditional information systems, including rural extension systems, to deal effectively with change (Lipper et al., 2014). Yet because this information may be highly complex, young people will need strong cognitive and non-cognitive skills if they are to be able to use it properly to develop strategies that work for them. And in order for that to happen, countries will need to improve their education systems (Muttarak and Lutz, 2014) and extension systems and orient them towards learning to learn. Action is thus required in multiple spheres and across time.

Embedding rural youth policy and investments in broader rural development strategies

Policies and investments for improving opportunities for rural youth have to be integrated into national and local strategies, policies and programmes. This vertical policy integration then needs to be complemented by horizontal coordination of sectoral policies and programmes related to rural youth in such fields as health, education, agriculture and employment (United Nations, 2018).[viii]

The last few decades have seen a proliferation of national youth policies that place youth at the centre of what are often ambitious, multisectoral policy initiatives designed to improve development outcomes for young people. In 2014, 122 countries had a national youth policy or strategy in place, and more than 40 per cent of the countries in all regions had approved youth policies (Youth Policy, 2014). Yet approving a youth policy does not necessarily translate into appropriate budget allocations or effective implementation, much less the inclusion of rural youth in the transformation process. A review of 57 of these youth strategies showed that 40 of them considered rural youth development in some way and 15 included at least one specific policy objective or programme targeting rural youth, but 17 made no mention of rural youth at all (Phillips, Pereznieto and Stevenson, 2018). Interestingly, the degree of policy focus on rural youth in a particular country does not appear to be related to the relative size of the rural youth population.

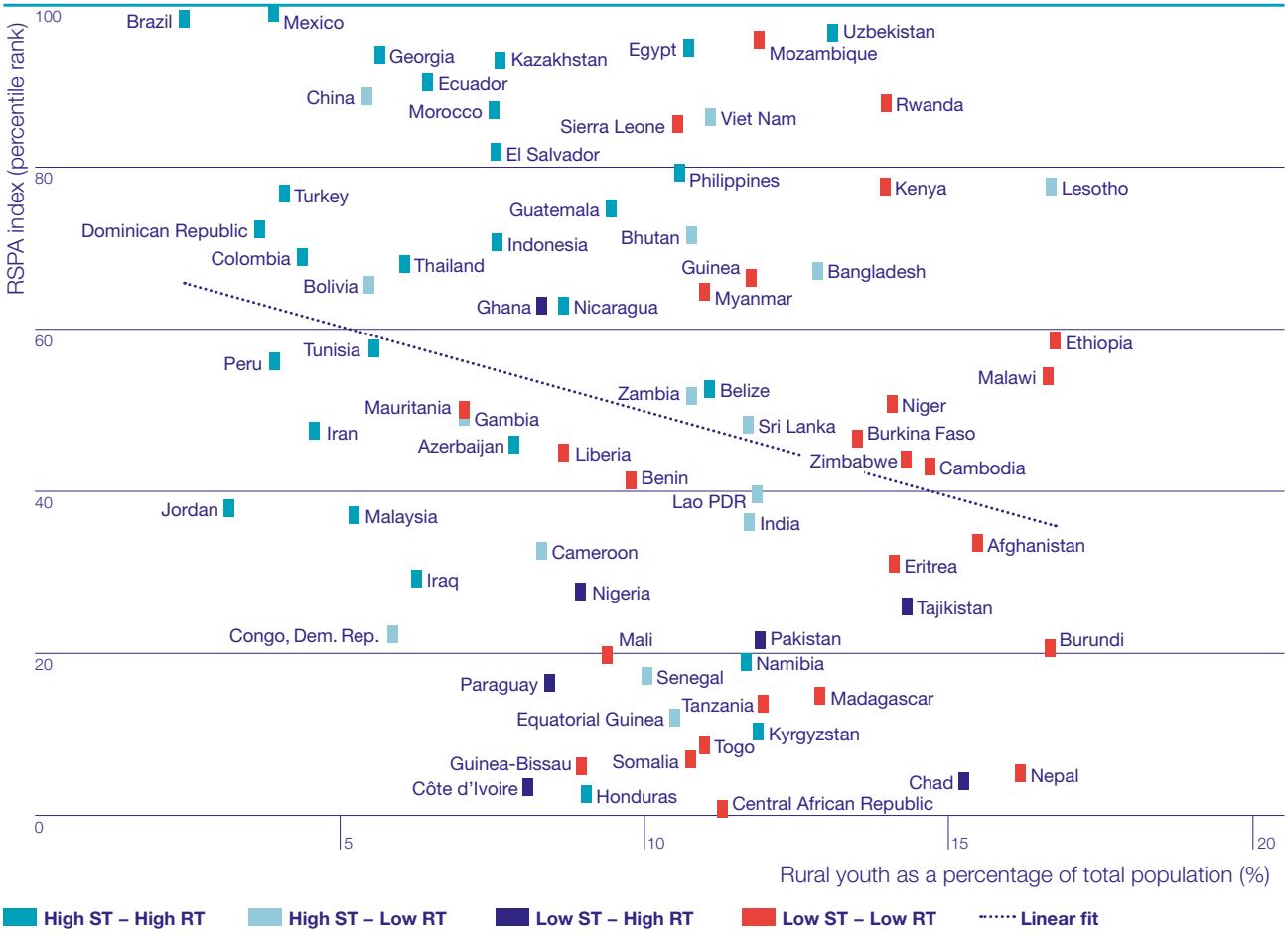
To what extent should a country design and invest in ambitious, youth-specific policies and programmes? The answer depends on the scope of the rural opportunities that are available, given the country's level of transformation and the nature of its rural opportunity space. This conclusion is underscored by the strong correlation between

countries with large rural youth populations and those with weak policy and institutional capacities, as measured by IFAD's Rural Sector Performance Assessment, which measures the quality of policies and institutions in the rural sector for achieving rural development and inclusive rural transformation (IFAD, 2018). Rural youth populations are heavily concentrated in countries with weaker institutional capacities for formulating and implementing policies for rural development (see **FIGURE 0**). Not surprisingly, these countries are also more likely to have the lowest levels of structural and rural transformation.

Many countries that have a national youth strategy also have a national ministry of youth tasked with implementing that strategy, such as the Ministry of Youth and Sports in Ethiopia and in Turkey and the Ministry of Youth and Information and Communications Technology in Rwanda. While having a ministry of youth may be seen

FIGURE 0 Large rural youth populations are found in countries with weak policy and institutional capacity

Rural sector performance ranking and rural youth as a percentage of total population in 2015, by country transformation level



Note: IFAD's Rural Sector Performance Assessment (RSPA) measures the quality of policies and institutions in the rural sector for achieving rural development and rural transformation benefitting the poor. See annex A for more information on the RSPA.
Source: Authors' calculations using IFAD's RSPA index data and population data from United Nations Department of Economic and Social Affairs (2017).

as a sign that priority is being placed on the young population, the scope of its agenda (which may, for example, be confined to sports) may be much more limited than if the youth strategy were managed by ministries with broader mandates. If a ministry of youth exists, it should have a mandate to formulate a comprehensive rural youth agenda.

Investments in multi-component programmes that address the full range of constraints to which young people are subject will be more effective in improving youth development outcomes if governments have the capacity to design and implement those programmes properly (Kluve et al., 2017; Alvarado et al., 2017). These cross-sectoral programmes require horizontal coordination among leaders and stakeholders at the same territorial level (Leyton Navarro, 2018) and should include mechanisms for promoting the participation of rural youth. Governments tend to engage young people only when dealing with youth-related issues (such as volunteering and sports) instead of integrating them into a wider range of activities. The effective participation of rural youth in broader decision-making processes will help to create a conducive policy environment that maximizes young people's assets, agency and access to services and opportunities and that will help them to develop the ability to avoid risks and be secure.

Many countries deserve to be commended for their efforts and for the investments that have been made to include their young populations in the development process, yet they should also be encouraged to broaden the scope of these efforts and investments. In the case of rural youth, in particular, policies and investments should be directed towards providing a wide range of rural opportunities while promoting youth inclusion. Only then will rural youth be able to improve their future prospects and create a dividend for society.

References

Adger, W.N. 2003 Social Capital, Collective Action, and Adaptation to Climate Change. *Economic Geography*, 79 (4): 387-404.

Ahmed, S. A., Cruz, M., Go, D. S., Maliszewska, M. and Osorio-Rodarte, I. 2016. How Significant Is Sub-Saharan Africa's Demographic Dividend for Its Future Growth and Poverty Reduction? *Review of Development Economics*, 20 (4): 762-793.

Aker, Jenny C. 2018. ICTs and Rural Youth. Background paper for the *Rural Development Report 2019*. Rome: IFAD.

Alvarado, G., Skinner, M., Plaut, D., Moss, C., Kapungu, C. and Reavley, N. 2017. A Systematic Review of Positive Youth Development Programmes in Low-and Middle-Income Countries. Washington, D.C.: YouthPower Learning, Making Cents International.

Arndt, C., Brooks, K., Hartley, F., Robertson, R. and Wiebe, K. 2018. Climate and Jobs for Rural Young People. Background paper for the *Rural Development Report 2019*. Rome: IFAD.

Bello, R. S., Bello, M. B. and Saidu, M.J. 2015. Small Scale Enterprises (SMES) and Agricultural Transformation: The Nigeria experience. *Science Journal of Business and Management. Special Issue: Sustainable Entrepreneurial Developments in Agribusiness*, 3 (5-1): 11-15 (available at https://doi:10.11648/j.sjbm.s.2015030501.13).

Brady, M., Assaad, R., Ibrahim, B., Salem, A., Salem, R. and Zibani, N. 2007. *Providing New Opportunities to Adolescent Girls in Socially Conservative Settings: The Ishraq Program in rural upper Egypt*. Cairo, Egypt: Population Council.

Brooks, N. 2003. Vulnerability, Risk and Adaptation: A conceptual framework. Working Paper 38, Norwich, UK: Tyndall Centre for Climate Change Research.

Chivasa, W., Mutanga, O. and Biradar, C. 2017. Application of Remote Sensing in Estimating Maize Grain Yield in Heterogeneous African Agricultural Landscapes: A review. *International Journal of Remote Sensing*, 38: 23, 6816-6845 (available at doi: 10.1080/01431161.2017.1365390).

Christiaensen, L., De Weerdt, J. and Todo, Y. 2013. Urbanization and Poverty Reduction: The role of rural diversification and secondary towns. *Agricultural Economics*, 44 (4-5): 435-447.

Clement, M. 2018. Closing the Global Gender Gap in Access to Financial Services, 25 April (available at https://psmag.com/economics/closing-the-global-gender-finance-gap).

Doss, C., Heckert, J., Myers, E., Pereira, A. and Quisumbing, A. 2018. Gender, Rural Youth, and Structural Transformation. Background paper for the *Rural Development Report 2019*. Rome: IFAD.

Engel, E. 1857. Die Productions- und Consumtionsverhaltnisse des Königreichs Sachsen. *Zeitschrift des Statistischen Bureaus des Königlich-Sächsischen, Ministerium des Innern*, 8 (9): 1-54. Reprinted as an appendix to Die Lebenskosten Belgischer Arbeiter-Familien früher und jetzt, *Bulletin de l'institut international de statistique* IX, premiere livraison, Rome, 1895.

FAO (Food and Agriculture Organization of the United Nations). 2018. *The State of Food and Agriculture: Migration and Rural Development*. Rome.

Filmer, D., and Fox, L. 2014. *Youth Employment in Sub-Saharan Africa*. Washington, D.C.: World Bank.

Fox, L. 2018. Economic Participation of Rural Youth: What Matters? Background paper for the *Rural Development Report 2019*. Rome: IFAD.

Füssel, H. M. 2017. Vulnerability: A Generally Applicable Conceptual Framework for Climate Change Research. *Global Environmental Change* 17 (2): 155-167.

Füssel, H. M. and Klein, R. J.T. 2006. Climate Change Vulnerability Assessments: An Evolution of conceptual thinking. *Climatic Change* 75 (3): 301-329 (available at https://doi.org/10.1007/s10584-006-0329-3).

Gasparri, N.I. and Muñoz, L. 2018. Inclusive Finance and Rural Youth. Background paper for the *Rural Development Report 2019*. Rome: IFAD.

Gastner, M.T. and Newman, M.E.J. 2004. Diffusion-based Method for Producing Density-equalizing Maps. *Proceedings of the National Academy of Sciences*, 101 (20): 7499-504 (available at https://doi.org/10.1073/pnas.0400280101).

Ghani, E., ed. 2010. *The Poor Half Billion in South Asia: What is holding back lagging regions?* New Delhi: Oxford University Press.

Gibson, J., Datt, G., Murgai, R. and Ravallion, M. 2017. For India's Rural Poor, Growing Towns Matter More than Growing Cities. *World Development*, 98: 413-429.

Gløersen, E. and Michelet, J. 2014. Experiences and Concepts on Vertical and Horizontal Coordination for Regional Development Policy. Input paper 4. Département de géographie et environnement, Université de Genève.

Groupe Spéciale Mobile Association (GSMA). 2017. Mobile Money in Latin America – An Industry Taking Off (available at https://www.gsma.com/mobilefordevelopment/programme/mobile-money/mobile-money-latin-america-industry-taking-off/).

Haggblade, S., Hazell, P.B. and Reardon, T. 2007. *Transforming the Rural Nonfarm Economy: Opportunities and Threats in the Developing World*. Washington, D.C.: International Food Policy Research Institute.

Heckman, J.J. and Kautz, T. 2013. Hard Evidence on Soft Skills. *Labour Economics*, 19 (4): 451-464.

IFAD (International Fund for Agricultural Development). 2016. *Rural Development Report 2016: Fostering inclusive rural transformation*. Rome: IFAD.

—. 2018. *Progress report on implementation of the performance-based allocation system. Addendum*. Available at: https://webapps.ifad.org/members/eb/125/docs/EB-2018-125-R-4-Add-1.pdf. Rome: IFAD.

IPCC (Intergovernmental Panel on Climate Change). 2014. *Climate Change 2014: Impacts, adaptation, and vulnerability. Part A: Global and Sectoral Aspects. Contribution of Working Group II to the Fifth Assessment Report of the Intergovernmental Panel on Climate Change*. Cambridge, UK, and New York, NY: Cambridge University Press.

—. 2018. *Global Warming of 1.5 °C – Summary for Policymakers*. Geneva.

Jaafar, H. H. and Ahmad, F. A. 2015. Crop Yield Prediction from Remotely Sensed Vegetation Indices and Primary Productivity in Arid and Semi-Arid Lands. *International Journal of Remote Sensing*, 36: 18, 4570-4589 (available at DOI: 10.1080/01431161.2015.1084434).

Jayne, T.S., Chamberlin, J., Traub, L., Sitko, N., Muyanga, M., Yeboah, F.K., Anseeuw, W., Chapoto, A., Wineman, A., Nkonde, C. and Kachule, R. 2016. Africa's Changing Farm Size Distribution Patterns: The rise of medium-scale farms. *Agricultural Economics*, 47 (S1): 197-214.

Kaufmann, D., Kraay, A. and Mastruzzi, M. 2010. The Worldwide Governance Indicators: Methodology and analytical issues. World Bank Policy Research Working Paper No. 5430. Washington, D.C.: World Bank.

Kluve, J., Puerto, S., Robalino, D., Romero, J.M., Rother, F., Stöterau, J., Weidenkaff, F. and Witte, M. 2017. Interventions to Improve the Labour Market Outcomes of Youth: A systematic review of training, entrepreneurship promotion, employment services and subsidized employment interventions. Oslo, Norway: The Campbell Collaboration.

Krugman, P.R. 1994. *The Age of Diminished Expectations: U.S. economic policy in the 1990s*. Cambridge, MA: MIT Press.

Leyton Navarro, C. 2018. Mecanismos Institucionales de Articulación para Programas de Combate a la Pobreza Rural. Working Paper 248. Lima, Peru: Instituto de Estudios Peruanos.

Lipper, L., Thornton, P., Campbell, B., Baedeker, T., Braimoh, A., Bwalya, M., Caron, P., Cattaneo, A., Garrity, D., Henry, K., Hottle, R., Jackson, L., Jarvis, A., Kossam, F., Mann, W., McCarthy, N., Meybeck, A., Neufeldt, H., Remington, T., Thi Sen, P. Sessa, R., Shula, R., Tibu, A. and Torquebiau, E. 2014. Climate-Smart Agriculture for Food Security. *Nature Climate Change*, 4: 1068-1072.

McMillan, M., Rodrik, D. and Sepulveda, C. 2017. Structural Change, Fundamentals and Growth: A framework and case studies. NBER Working Paper 23378. National Bureau of Economic Research.

Muttarak, R., and Lutz, W. 2014. Is Education a Key to Reducing Vulnerability to Natural Disasters and Hence Unavoidable Climate Change? *Ecology and Society*, 19 (1): 42 (available at http://dx.doi.org/10.5751/ES-06476-190142).

Noorani, M. 2015. To Farm or Not to Farm? Rural Youth Perceptions of Farming and their Decision of Whether or Not to Work as a Farmer: A case study of rural youth in Kiambu County, Kenya. Ottawa, ON: University of Ottawa School of International Development and Global Studies.

Phillips, L., Pereznieto, P. and Stevenson, J. 2018. Policies and Institutions for Rural Youth Development Outcomes. Background paper for the *Rural Development Report 2019*. Rome: IFAD.

Ripoll, S., Andersson, J., Badstue, L., Büttner, M., Chamberlin, J., Erenstein, O. and Sumberg, J. 2017. Rural Transformation, Cereals and Youth in Africa: What role for international agricultural research? *Outlook on Agriculture*, 46 (3): 1-10 (available at doi: 10.1177/0030727017724669).

Roberts, B. and Hohmann, R.P. 2014. The Systems of Secondary Cities: The neglected drivers of urbanising economies. CIVIS Sharing Knowledge and Learning from Cities No. 7, Washington, D.C.: World Bank.

Sekabira, H. and Qaim, M. 2017. Can Mobile Phones Improve Gender Equality and Nutrition? Panel data evidence from farm households in Uganda. *Food Policy*, 73 (C): 95-103.

Stecklov, G. and Menashe-Oren, A. 2018. The Demography of Rural Youth in Developing Countries. Background paper for the *Rural Development Report 2019*. Rome: IFAD.

Sumberg, J., Abay, K., Asnake, W., Ayalew, H. and Chamberlin, J. 2018. Landscapes of Opportunity? How Young People Engage with the Rural Economy in Sub-Saharan Africa. Background paper for the *Rural Development Report 2019*. Rome: IFAD.

Trivelli, C. and Morel, J. 2018. Rural Youth Inclusion, Empowerment and Participation. Background paper for the *Rural Development Report 2019*. Rome: IFAD.

Tschirley, D., Reardon, T., Haggblade, S., Jayne, T., Liverpool-Tasie, S., Awokuse, T., Muyanga, M., Wangalachi, A. and Makani, A. 2017. Engaging the Agribusiness Sector in Inclusive Value Chain Development: Opportunities and challenges. In *Africa Agriculture Status Report 2017: The business of smallholder agriculture in Sub-Saharan Africa*. Alliance for a Green Revolution in Africa (AGRA).

UNDESA (United Nations Department of Economic and Social Affairs), Population Division. 2017. *World Population Prospects: The 2017 Revision*. New York: United Nations.

—. 2014. *World Urbanization Prospects: The 2014 Revision*. New York: United Nations.

United Nations. 2018. *World Public Sector Report 2018: Working Together: Integration, institutions and the Sustainable Development Goals*. Division for Public Administration and Development Management, Department of Economic and Social Affairs (DPADM), New York.

Van den Broeck, G. and Kilic, T. 2018. Dynamics of Off-Farm Employment in Sub-Saharan Africa: A gender perspective. Policy Research Working Paper 8540. Washington, D.C.: World Bank.

Wiggins, S. and Proctor, S. 2001. How Special Are Rural Areas? The economic implications of location for rural development. *Development Policy Review*, 19 (4): 427-436.

World Bank. 2017. DataBank: Global Financial Inclusion. Washington, D.C. (available at http://databank.worldbank.org/data/reports.aspx?source=1228).

—. 2018. *World Development Report 2018: Learning to realize education's promise*. Washington, D.C.: World Bank.

—. 2019. *World Development Report 2019: The changing nature of work*. Washington, D.C.: World Bank

Yeboah, F.K., Jayne, T.S., Muyanga, M. and Chamberlin, J. 2018. The Intersection of Youth Access to Land, Migration, and Employment Opportunities: Evidence from sub-Saharan Africa. Background paper for the *Rural Development Report 2019*. Rome: IFAD.

Youth Policy 2014. *State of Youth Policy 2014*. Berlin: Youthpolicy.org (available at http://www.youthpolicy.org/library/wp-content/uploads/library/2014_Special_Edition_State_Youth_Policy_ENG.pdf).

Endnotes

i See the specific targets of Goals 4 and 8, along with General Assembly resolution 71/313, which states that "Sustainable Ddevelopment Goal indicators should be disaggregated, where relevant, by income, sex, age, race, ethnicity, migratory status, disability and geographic location, or other characteristics, in accordance with the Fundamental Principles of Official Statistics." https://unstats.un.org/sdgs/indicators/indicators-list/.

ii The term "developing countries" is used to refer to low-income countries, lower-middle-income countries and upper-middle-income countries as defined by the World Bank.

iii Youth is defined differently in different countries. In order to ensure comparability, this report employs the United Nations definition of youth as people between the ages of 15 and 24 (see paragraph 19 of the annex to the report of the Secretary-General on the International Youth Year, A/40/256, 1985). In recognition of the fact that the concept of youth is a social construct, at times quantitative information whose scope exceeds the bounds of this age group is provided.

iv For further details and publications, see: http://www.worldpop.org.uk/data/methods/.

v This report applies the rural opportunity space concept to map the developing world's population on a globally comparable rural-urban continuum based on population density data rather than administrative delineations. Using this broader definition, rural is considered everything that it is non-urban. Thus, rural youth refers to young people living rural, semi-rural and peri-urban areas on the continuum. Applying this definition, there are 778 million rural youth in developing countries (see chapter 2 and the annex B of the main report for further information).

vi The term "subsistence" is used in a relative sense, since subsistence farmers in the strict sense of the term, i.e. farmers who are not engaged at all in any market either on or off the farm, are rare.

vii See https://www.iotforall.com/iot-applications-in-agriculture/ [downloaded 15 October 2018].

viii Vertical policy integration refers to mechanisms that deal with the challenge of coordinating and integrating development strategies and policies across different levels of government. It entails linking different scales of governance, from the local to international levels, as well as institutions across different levels of social organization. See Gløersen and Michelet, 2014.

Photo credits

Cover page: ©IFAD/Andrew Esiebo/Panos

Pages 8-9: ©IFAD/Minzayar Oo/Panos

International Fund for Agricultural Development
Via Paolo di Dono, 44 - 00142 Rome, Italy
Tel: +39 06 54592012 - Fax: +39 06 5043463
Email: ifad@ifad.org
www.ifad.org

facebook.com/ifad
instagram.com/ifadnews
linkedin.com/company/ifad
twitter.com/ifad
youtube.com/user/ifadTV

ISBN 978-92-9072-909-9