BOOSTING DECENT EMPLOYMENT FOR AFRICA'S YOUTH

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THE FOURTH INDUSTRIAL REVOLUTION (4IR) AND THE FUTURE OF WORK: COULD THIS BRING GOOD JOBS TO AFRICA?

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DECENT JOBS FOR YOUTH

Executive Summary

As the world's youngest continent, with a rapidly growing labor force, improving employment opportunities in Africa is particularly salient now and will remain important given the number of young people expected to enter the job market. After two decades of solid economic growth and improvements in employment opportunities, countries are back on their heels following disruptions in the global economy and the blows to local economies caused by the COVID-19 global pandemic. Africa's employment challenge in the post-COVID-19 era is to return to, and accelerate the previous, and in most countries, successful, trajectory of economic and employment transformation. The question addressed in this paper is to what extent could the suite of new technologies known as the Fourth Industrial Revolution (4IR) accelerate the transformation by speeding up the creation of new wage jobs in expanding, higher-productivity sectors, leading to a decline in the share of people working informally, and to what extent would youth benefit?

4IR technology brings opportunities for production cost reduction, productivity and earnings improvement, and the development and introduction of new business lines, providing a wealth of new opportunities that should prove particularly attractive and accessible to Africa's youth. Deployment of 4IR technology could lead to new, often formal, wage jobs being created at a faster rate than the growth of the labor force, and earnings improvements in the informal sector. Some sectors will offer more opportunities than others:

- The services sectors through e-commerce, expanded tourism, and BPO represent the greatest opportunities for formal wage employment expansion using 4IR—as long as energy and ICT infrastructure are available. However, given the starting place, most service sector employment is likely to remain informal in lower-middle-income countries (LMICs) and low-income countries (LICs).

- In the agricultural sector, 4IR technology could support an increase in farm earnings and a reduction in poverty, as well as bring important environmental benefits, but will not lead to an expansion of employment, as this sector has been losing its share of employment for years.

- In the manufacturing sector, 4IR technology may open new opportunities for smaller-scale production for domestic and regional markets, but will not likely increase formal employment since 4IR technology in manufacturing is labor-saving.

- Substitution of capital for labor—i.e., destroying jobs—is less likely in Africa than in rich countries, owing to a higher cost of capital compared to labor in Africa, and a lower level of industrialization using 20th century technology.

However, 4IR technology is likely to bring only incremental change in the trajectory of employment transformation in terms of shift from the informal to the formal sector, as this trajectory has been already set by past demographic change and current level of economic development.

Apart from Kenya, most low-income countries (LICs) and lower-middle income countries (LMICs) in SSA have not established the conditions for widespread adoption of the digital technologies of the 20th century, much less 4IR. This not a youth-specific issue. In many countries, mobile phone and fixed or mobile broadband usage significantly lags behind that of developing countries in other regions. In most countries it is also more expensive—an economic policy issue, not a technological one. Lack of energy and transportation infrastructure limits the adoption of advanced technologies across the continent, but especially in SSA. 4IR technology is skill-intensive, but SSA's skill development institutions are not adequate for the needs of the current labor force, much less the future one and there are few cost-effective strategies to address this. By contrast, in the upper middle-income countries (e.g., South Africa) and in the LMICs of North Africa, 3IR technology adoption has advanced, and strategies have been prepared to support 4IR adoption. Yet even in these countries, youth unemployment remains high and the strategies have not sufficiently focused on how to maximize youth employment outcomes from technology adoption.

Conscientiously shaping public policy guiding technological growth to maximize benefits and minimize costs will be crucial for success in 4IR. Given the wide range of technologies and their impacts as well as the variability in country context, counting potential job losses and gains will not move countries forward. A critical assessment of the literature shows that countries need comprehensive, effective, and implementable strategy that will address the various challenges in their country context. Strategies should

involve public and private sector and international actors and include ministries of youth, employment, technology, finance, infrastructure, and cybersecurity, etc. working together rather than siloing the issue of digital transformation in one body.

Key challenges to be addressed include:

- reforming laws, regulation, and tax systems so that they are welcoming of 4IR technology, encourage innovation, protect digital privacy and support cybersecurity;

- closing physical and digital infrastructure gaps with a mix of public and private financing so all populations have access to internet and mobile phone services (with special attention to rural areas and smaller cities); and

- reducing skill deficits at all levels, but with an emphasis on cost effectively developing basic cognitive and socio-emotional skills to insure inclusion. High level STEM skills, which may be needed to adopt 4IR technology, should be developed using primarily private financing, in conjunction with industry.

As African states become increasingly integrated into the global economy they cannot escape 4IR. The balance between the positive and negative outcomes from 4IR will depend on the policy choices countries make. The wrong choices could lead to widening inequality, which is a risk to economic development and transformation and negatively affects the employment outcomes of both youth and adults.

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About INCLUDE

INCLUDE was conceived in 2012 by the Dutch Ministry of Foreign Affairs to promote evidence-based policymaking for inclusive development in Africa through research, knowledge sharing and policy dialogue. INCLUDE brings together researchers from African countries and the Netherlands who work with the private sector, non-governmental organizations and governments to exchange knowledge and ideas on how to achieve better research-policy linkages for inclusive development in Africa. Since its establishment, INCLUDE has supported more than 20 international research groups to conduct research on inclusive development and facilitated policy dialogues in Africa and the Netherlands.