Globethics Repository

Agri-data : pros and cons

This page was generated automatically upon download from the Globethics Repository. More information on Globethics see https://www.globethics.net. Data and content policy of Globethics Repository see https://repository.globethics.net/pages/policy.

Item Type	Book chapter
Authors	Ifedi, Adesuwa;Tanzmann, Stig
DOI	10.58863/20.500.12424/4276053
Publisher	Globethics Publications
Rights	Globethics Publications;Attribution-NonCommercial-NoDerivatives 4.0 International
Download date	2026-07-17 04:50:27
Item License	http://creativecommons.org/licenses/by-nc-nd/4.0/
Link to Item	http://hdl.handle.net/20.500.12424/4276053

19

AGRI-DATA PROS AND CONS

Adesuwa Ifedi, Nigeria / Stig Tanzmann, Germany[304]

19.1 Agri-Data and Drones: Bringing Young Africans Back to Farming (Pro)

As communities in Africa start to rebound from the initial impacts of coronavirus pandemic[305] and look ahead, the importance of creating millions of jobs for the continent's booming youth population cannot be

[304] Adesuwa Ifedi (Pro), Nigeria, Senior Vice-President Heifer Africa at Heifer International. Stig Tanzmann (Con) from Bread for the World, Germany. Translated from German: *Mit Daten und Drohnen Afrikas Landwirtschaft retten? Machen digitale Technologien die Feldarbeit attraktiver und produktiver? Ein Pro und Kontra*, Welt-Sichten, 28.2.2022. https://www.welt-sichten.org/artikel/39977. © Globethics Publications, 2023 | DOI: 10.58863/20.500.12424/4276053 | CC BY-NC-ND 4.0 International

[305] See African Arguments, https://africanarguments.org/category/covid-19-in-africa/

overstated. This will require concerted efforts across myriad sectors, but one that is brimming with vast and untapped resources is agriculture.

I hear a lot of dire warnings about the food situation in Africa, and there are indeed many reasons to be concerned. The pandemic disrupted supply chains, upending many farmers' precarious livelihoods that are already being hit hard by the climate crisis in new and unsettling ways. It's easy to think that we are on an unalterable path toward a crisis of food security in Africa, but I know that doesn't have to be the case.

The future of food on the continent is in the hands of African farmers, particularly our young farmers of whom we are in desperately short supply. About 60% of Africans are under 25 years old, but the average age of Africa's smallholder farmers is over 60. Too many young people view farming as exhausting work with antiquated tools for very low pay. You rarely hear under 30s say "I want to be a farmer" and many parents shudder at the thought of their children going into agriculture. Yet if we are going to secure a sustainable future of food in Africa, these things need to change. We need to show agriculture can be a major source of jobs for the future.

A report 2021 of Heifer International[306] reveals why youth are turning away from agriculture and highlights a major opportunity to evolve the sector and bring them back. The survey, which drew responses from some 30,000 young people across 11 African countries, found that only about 1 in 4 young farmers has access to the kinds of agricultural technologies that are transforming food production around the world. These "agritech" tools include things like digital sensors that monitor soil health and digital platforms that connect farmers with market opportunities, technical advice and high-quality inputs. The fact that many young African farmers lack access to these kinds of tools puts them at a severe disadvantage.

---

[306] The Future of Africa's Agriculture - An Assessment of the Role of Youth and Technology. 2021. Heifer. https://media.heifer.org/About_Us/Africa-Agriculture-Tech-2021.pdf

The report also found that with the appropriate financing, training and access to technologies, many more African youth would seriously consider pursuing a career in agriculture. The survey, which included focus groups with farmers and tech companies, revealed evidence of a rapidly growing cadre of agritech start-ups operated by creative, young people across the continent. By encouraging and supporting this new generation of innovators, we can boost access to labour-saving and transformative technologies for huge numbers of smallholder farmers.

These young, innovative entrepreneurs understand the farming struggles of their parents' generation. But they also believe farming can provide a promising future for their own generation. In Ethiopia, a group of young engineers is providing drone services[307] for analysing farm performance and a mobile application to help farmers detect crop disease. A start-up in Nigeria[308] is using machine learning to guide farmers from seed to market, helping them choose what to grow, how to grow it and where to sell it. And farmers from Senegal to Kenya can sign on to receive SMS alerts on important weather updates, market insights and farming advice.

With these kinds of tools and technologies, young African farmers could better manage, or even avoid, many of the challenges they reported in the survey, from climate shocks to crop pests and disease. These technologies have the power to make smallholder farmers much more productive, profitable and sustainable – and to make food production more exciting and attractive for a new generation.

Financing and supporting these companies are powerful ways of creating a virtuous circle in African agriculture: successful youth-led agritech companies lead to more successful young farmers and a more dynamic and profitable agricultural sector. Their success then creates an even bigger market opportunity for agriculture innovators that encourages more investors to get involved.

---

[307] Debo Engineering, https://deboengineering.com/

[308] Farmz2U's, https://www.farmz2u.com/solutions.html

But this future will not just magically appear. Governments and businesses alike need to invest in African farmers and encourage them to develop and adopt agritech innovations. The need for this investment grows more urgent every day. Our survey revealed that during the pandemic some 40% of agricultural organisations supporting smallholder farmers were forced to close at least temporarily, while more than a third lacked the capital they needed to recover.

The pandemic has exacerbated an already difficult situation for African farmers, with climate change looming as a bigger threat. But when I talk to the young people running African agritech firms, I detect no sense of gloom. These young people exude energy, ideas and optimism. They represent an entire generation that has the potential to transform African agriculture for the better. That gives me hope for the future. In a time filled with hardship, we should embrace their vision and make it our own.

19.2 Digitisation Serves Mainly Corporations (Cons)

Adesuwa Ifedi from the US aid organisation Heifer International argues that the introduction of digital technologies would make agriculture in Africa more productive and more attractive to young farmers. This in turn would improve food security on the continent. Ifedi cites the use of drones to analyse soil quality and digital platforms for technical advice as examples. Once again, a technological revolution is supposed to solve existing complex socio-economic distribution problems.

The parallels to the Green Revolution in the 1960s and 1970s, especially in Asia, are obvious. There, agricultural production was to be improved with the help of chemical fertilisers and pesticides, industrial seeds, and increased mechanisation and irrigation. This has caused major ecological and social problems in many countries. In Africa, this approach was not successful at all. Digitization will not change that either, because most digital technologies aim to optimise the approach of the

Green Revolution, but not to offer an alternative. The digitization of agriculture in Africa is being driven by the same states, corporations and philanthropic foundations as the Green Revolution. Bread for the World, together with other organisations, took a very critical look at the Alliance for a Green Revolution in Africa (AGRA).

Studies have shown that AGRA could not keep its full-bodied promises. For this reason alone, scepticism about the promises of digitization is appropriate. Not surprisingly, Heifer International presented its study on youth and agricultural digitization in Africa, mentioned by Adesuwa Ifedi, at the African Green Revolution Forum 2021 in Nairobi, among others. The Forum has its agenda in its name: it represents the "business as usual" in agriculture that has brought African agriculture to the difficult position it is in now.

The digitization of "business as usual" will not bring about a turnaround. On the contrary: it threatens to further exacerbate the agricultural crisis and drive even more people out of agriculture. The Green Revolution is dominated by chemical and agricultural companies such as Bayer, Syngenta and Yara, whose business model is to tie farmers to technical solutions, such as the use of certain seeds and artificial fertilisers, pesticides and machines. Digitization aims to further increase this dependency. This is particularly evident in the case of seeds. The companies promise that the sequencing and digitization of seeds will significantly increase yields. In principle, however, their main aim is to obtain patents on seeds and to introduce genetic engineering in agriculture.

Farmers are left with no choice but to use corporate seed because they can't prove they're not infringing a patent (How much do they have to prove it? To whom? And why is it hard to prove if they don't have patented seed use?). When it comes to chemical fertilisers and pesticides, too, the concerns of the corporations are to bind farmers to their products. Instead of daring to phase out pesticides and chemical fertilisers and changing the system, as in agro-ecology, the existing system is to be optimised with drones and total surveillance of farmers, and the prof-

its of the corporations are to be increased. Digitization makes it possible to transfer relevant operating data such as soil quality, water availability, sowing times, fertilisation intensity and harvest times to the large corporations with the help of the help. This takes away the sovereignty of the farmers to a completely new depth, alienates them from their land (okay?) and makes them completely interchangeable. If there is no radical trend reversal in agriculture, then digitization will serve the corporations and not the farmers in Africa.