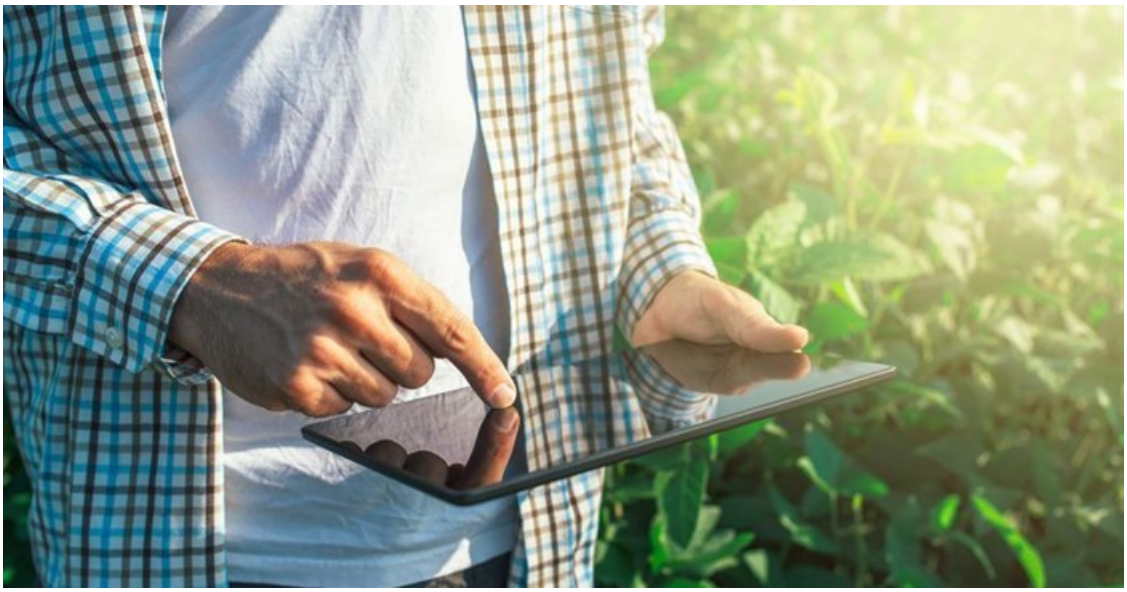
New report: Digital services to transform African agriculture

According to a new report by the Technical Centre for Agricultural and Rural Cooperation (CTA) and Dalberg Advisors - Digitilisation of African Agriculture Report 2018-2019 - more than 90% of the market for digital services that support African smallholders remain untapped and could be worth more than €2bn (US$2.26bn).



©Igor Stevanovic via 123RF

The report found nearly 400 different digital agriculture solutions with 33 million registered farmers across sub-Saharan Africa.

However, the current digitalisation for agriculture (D4Ag) market is likely to be the tip of the iceberg, with a penetration of just 6%, and turnover of an estimated €127m (US$143m) in 2018 out of a total addressable market of €2.3bn (US$2.6bn).

The report found an annual growth of more than 40% for both the number of registered farmers and the number of digital solutions, suggesting the D4Ag market in Africa is likely to reach the majority of the region's farmers by 2030.

Modernising Africa agriculture

"Digitalisation can be a game-changer in modernising and transforming Africa's agriculture, attracting young people to farming and allowing farmers to optimise production while also making them more resilient to climate change," said Michael Hailu, director of CTA.

"This report indicates that despite challenges, the economics are rapidly improving, with a handful of players beginning to develop viable, large-scale businesses. To reach its full potential, companies will now need to focus on converting customer reach to actual use in order for this type of model to yield returns."

Among the digital solutions tracked and analysed in the report were farmer advisory services, which provided weather or planting information via SMS or smartphone applications, and financial services including loans and insurance for farmers.

Improving supply chain management

Other solutions linked farmers with markets for farm inputs and farm produce, or provided supply chain management to improve traceability and last-mile logistics.

Some services used satellite imagery, weather data, powerful big data analytics and machine learning techniques to deliver valuable real-time agricultural insights and forecasts at national and regional levels.

More than a third of participants in the study said they already used at least one form of advanced technology such as drones, field sensors, big data or machine learning, and almost 60 per cent of respondents said they expected to integrate these types of technologies into their operations in the next three years.

Early figures indicated that farmers saw improvements in yields ranging from 23 to 73%, and increases of 18 to 37% in incomes from using these solutions. Models that bundled more than one solution together—so-called "super platforms" which combine digital market linkages, digital finance, and digital advisory service—were associated with yet further improved yields of up to 168%.

Supporting agriculture transformation

"Digitalisation for agriculture has the potential not just to support agricultural transformation in Africa but to do so sustainably and inclusively for Africa’s 250 million smallholder farmers and pastoralists," said Michael Tsan, partner at Dalberg Advisors and co-leader of the firm’s global Digital and Data Practice.

"While the opportunity is immense, the report is not naïve about the challenges that remain and the significant work required by agribusiness, governments, donors, and investors to maximise the transformative impacts of digital agriculture in years to come."

The report highlighted several gaps in D4Ag uptake, particularly among women, who account for more than 40% of the agricultural labour force yet comprise only a quarter of the registered users of digital services. Such digital divides and other concerns such as the privacy and safety of farmer data remain potential risks, the authors said.

"The last decade has been the 'ICT4Ag' age, focused on developing and testing the potential for digital solutions in agriculture," said Benjamin Addom, team leader, ICTs for agriculture, CTA.

"The next decade—the 'D4Ag' age—will be about translating this potential into reality and doing so equitably and sustainably."

The report made several recommendations for harnessing the potential of digitalisation in African agriculture. **These included**:

• The creation of an alliance to promote partnerships and scale up solutions,

• More attention to farmer data privacy and security,

• Further focus on measuring D4Ag impacts,and

• Substantially scaled up investment for D4Ag infrastructures such as national agriculture data systems, weather/climate surveillance, and digitised field agronomy assets.