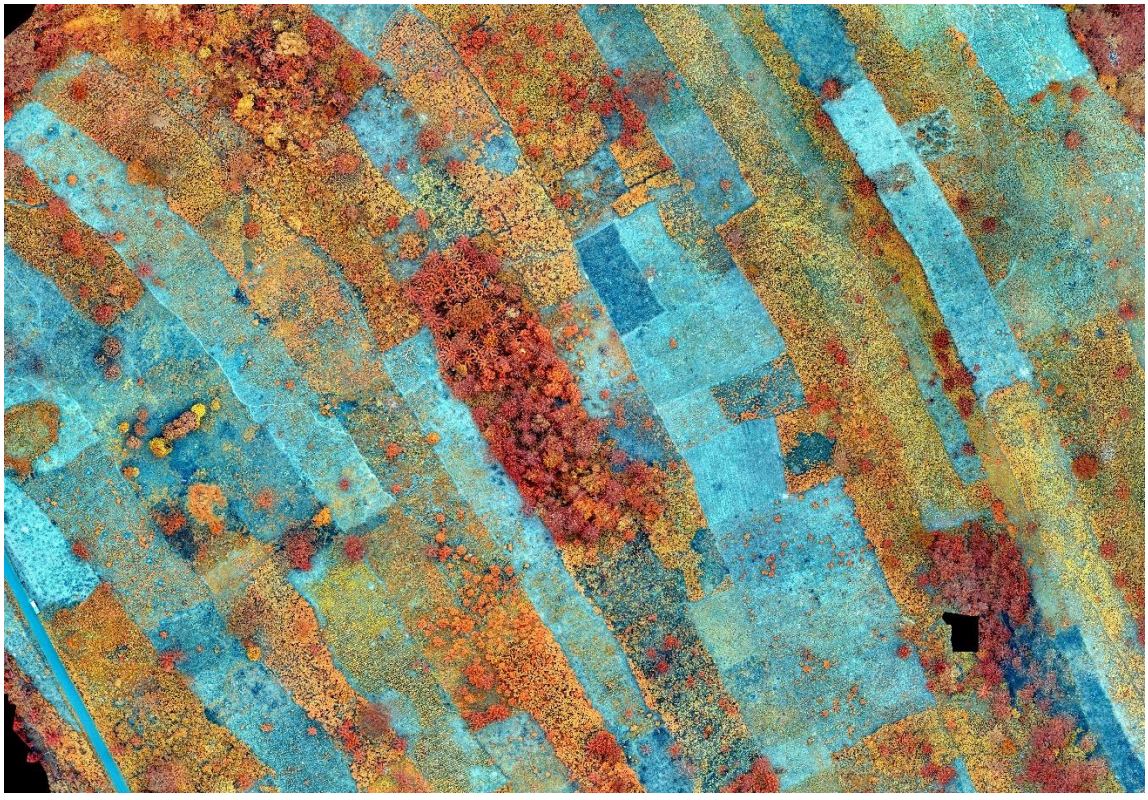
Project Completion Report

Project title: **Measuring the Outcomes of *The Digitalisation of African Agriculture Report, 2018–2019***

Organisation: **Technical Centre for Agricultural and Rural Cooperation (CTA)**

Project Coordinator: **Benjamin Kwasi Addom**



Date: August 2020

This project completion report was prepared by **Benjamin Kwasi Addom, Michael Kermah, and Jorge Chavez-Tafur**.

From 1983 to 2020, the Technical Centre for Agricultural and Rural Cooperation (CTA) was an international institution of the Organisation of African, Caribbean and Pacific States (OACPS) and the European Union (EU). Its mission was to advance food and nutritional security, increase prosperity and encourage sound natural resource management in African, Caribbean and Pacific countries. In its project portfolio (2016–2020) of 73 projects, CTA focused on digitalisation, youth entrepreneurship, and climate resilience as its priority intervention areas.

CTA came to the end of its mandate as the Cotonou Agreement between the EU and the ACP countries, the legal and financial framework within which CTA functioned, ended on 31 December 2020. As part of CTA's orderly closure, all major projects created project completion reports which are now being made available to the wider public to share lessons learned. These reports specify sections on results, financial information, lessons learned and references.

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1 Executive summary

Working together with Dalberg Advisors, CTA published *The Digitalisation of African Agriculture Report* in June 2019 (the publication can be downloaded from https://tinyurl.com/y6546zwh). This was a "first-of-its-kind", baseline report that highlights the state of digitalisation in enabling the transformation of African agriculture. The report was distributed through different channels – and reached thousands of readers in Africa and elsewhere. Several months later, CTA conducted this study to assess if the objectives of the report had been achieved. CTA was specifically interested in seeing how the report had been or is being used, and the extent to which the recommendations of the report have been or are being implemented. Next to this, CTA wanted to see if there is a general interest in building upon this work; and thereby generate targeted recommendations for any future actions by those stakeholders wishing to build on CTA's legacy.

To do this, an online survey was launched in April 2020 and ran for 4 weeks. The survey targeted a diversity of stakeholders – farmers, agribusiness enterprises, ministries, policy makers, digital technology centres, national and international/donor organisations, academia, media, and others. The responses from 156 respondents, and a few follow-up in-depth interviews with some of the respondents formed the basis for the findings of this report.

Nearly 80% of the respondents were aware of the report, mostly learned about it from CTA's website and its newsletter. Out of this, as high as 75% went on to read the report, either the whole version or the executive summary, and largely the electronic version downloaded from the CTA website. This translates to over 25,000 people reading the report within the one-year period when extrapolated to the over 34,000 downloads. Remarkably, 95% of those who read the report were either very satisfied or satisfied with it. Not everyone who read the report also used it, but almost 60% used or are using it as part of their work. Most of the users are based or working in Africa as the content of the report was focused on African agriculture, working in academic institutions or as part of private business companies, and mainly using the report to support regular research activities, design and implementation of projects or programmes, and private business development.

The opinion of readers indicated that the objectives of the report were largely met. Roughly 90% of readers either strongly agreed or agreed to the achievement of the objectives of catalysing interest and engagement in the sector, by showing the current state of digital agricultural innovations in Africa and demonstrating the financial and non-financial opportunities. On showcasing the commercial potential of the D4Ag sector, sizeable share of readers was however not highly convinced. Respondents found all the seven recommendations of the report to be useful and being implemented. However, they placed a higher value on three of them - business model sustainability, human capital development, and the impact on less-served populations.

On the way forward, the opinion of respondents is that the report needs to be updated and similar work conducted focusing on other continents or themes, particularly women and youth. Most respondents suggested that other organisations should take the lead, building on the work started by CTA. Accordingly, most stakeholders are willing to contribute data and expertise. Unfortunately, funding could be a limitation since only a small fraction working in private business enterprises, regional/international or donor organisations/institutions and ministries or similar public entities are willing to provide financial support.

2 Introduction

Working together with Dalberg Advisors, CTA completed and published *The Digitalisation of African Agriculture Report* in 2019. This was presented as a first-of-its-kind, baseline, analytical report, compiling and highlighting data on the state of digitalisation enabling the transformation of African agriculture.

The proliferation of accessible digital innovations, considering both technologies and solutions/services, is opening tremendous opportunities to transform smallholder agriculture into profitable, sustainable and inclusive businesses. According to the report, since 2012 there has been a 44% annual growth rate in the number of digital platforms and services for African agriculture. The report also provided a forecast for the period 2025–2030 – a first for the sector to help donors and investors identify the opportunities in what is now known as the Digitalisation for Agriculture (D4Ag) sector.

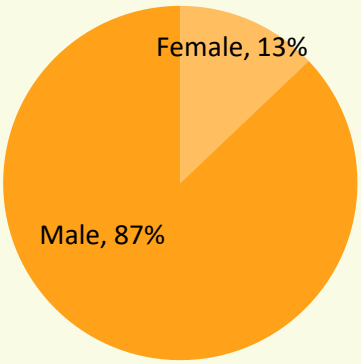
Since its launch in June 2019, the report has been distributed through different channels – and it reached thousands of readers in Africa and elsewhere. Several months after this, CTA started a short review to assess if the objectives of the report had been reached. CTA is especially interested in seeing how the report had been or is being used; and the extent to which the recommendations of the report have been or are being implemented. Next to this, CTA wanted to see if there is a general interest in building upon this work; and thereby generate targeted recommendations for any future actions by those stakeholders wishing to build on its legacy.

2.1 Assessment methodology

An online survey was launched in April 2020 and ran for 4 weeks. The survey targeted a diversity of stakeholders – farmers, agribusiness enterprises, ministries, policy makers, digital technology centres, national and international/donor organisations, academia, media and others – and was largely distributed through the same channels or media used for the distribution of the D4Ag report itself: the official Twitter (@CTAflash) and LinkedIn handles of CTA. It was also shared via the LinkedIn page of the Digitalisation for Agriculture (D4Ag) group and in different communities of practice: Unmanned Aerial Vehicles for Agriculture, D4Ag (the digital springboard for inclusive agriculture, African Forum for Agricultural Advisory Services Network), the CTA AgriHack Talent Initiative and the CTA Youth (Ardyis) Networks. The survey was also promoted on the personal Twitter and LinkedIn handles of some staff of the ICTs for Agriculture Team at CTA.

A total of 180 responses were received, and after data cleaning 156 responses were retained and analysed with IBM SPSS Statistics version 24. To gather additional insights, a few respondents were selected based on comments provided in the online survey and follow-up interviews were conducted.

Figure 1: Share of respondents by gender



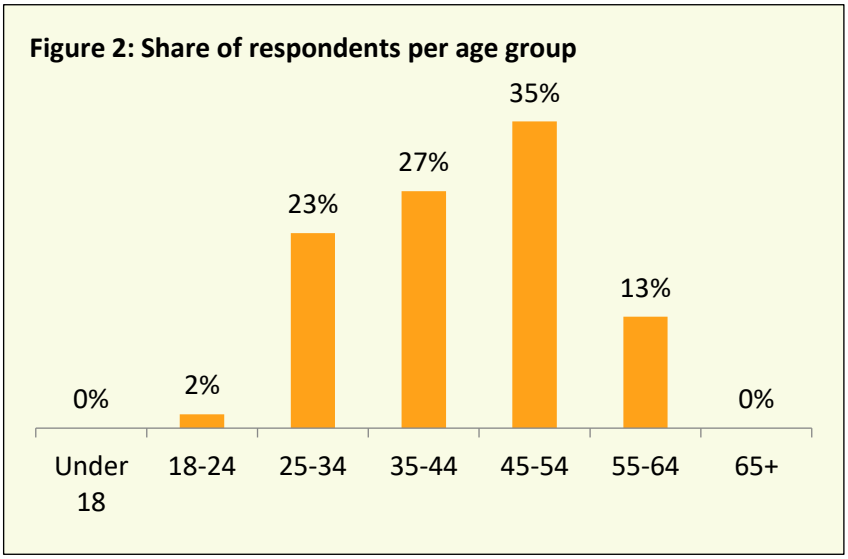
The survey data was augmented with other statistics including PDF downloads of the report,

pageviews on the CTA website, and social media (Twitter and LinkedIn) impressions and engagements involving other versions of the report – the video summarising the findings of the report.

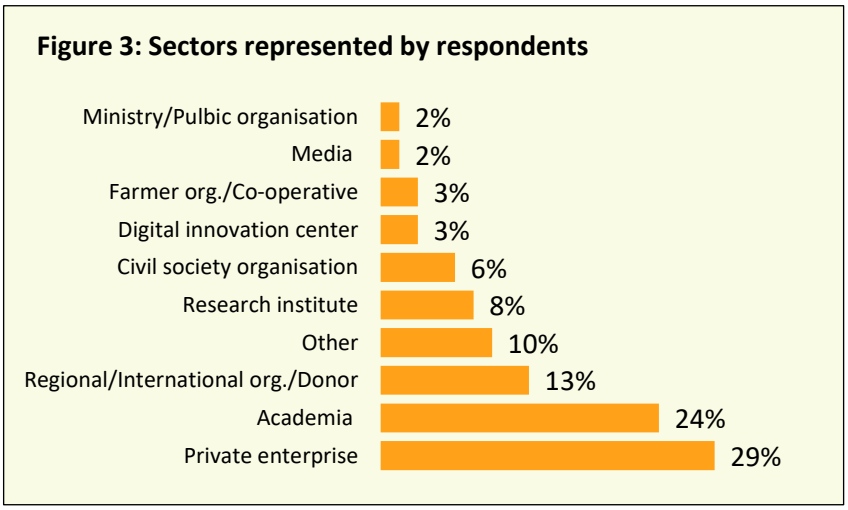
2.2 Responses to the survey

Perhaps not surprisingly, most of the respondents were males (87%), showing a similar trend to the one seen in the report itself. For different reasons, men seem to be more interested in digital innovations (see Figure 1) than women.

A different pattern was seen in terms of age distribution (see Figure 2). While the report shows very clearly that students and younger people are much more interested in digital innovations, there were many older people who either read and/or used the report in some way. As one of the respondents put it, "even if they do not necessarily work as researchers, older people seem to be more interested in additional information and in knowing about it all. Younger people already know a lot: they are using these tools every day." In other words, "... younger people are already convinced, and they are learning by doing, every day...". The pattern also confirms the interest from the adult population in validating the importance of digital innovations for agriculture – whether a hype or reality.

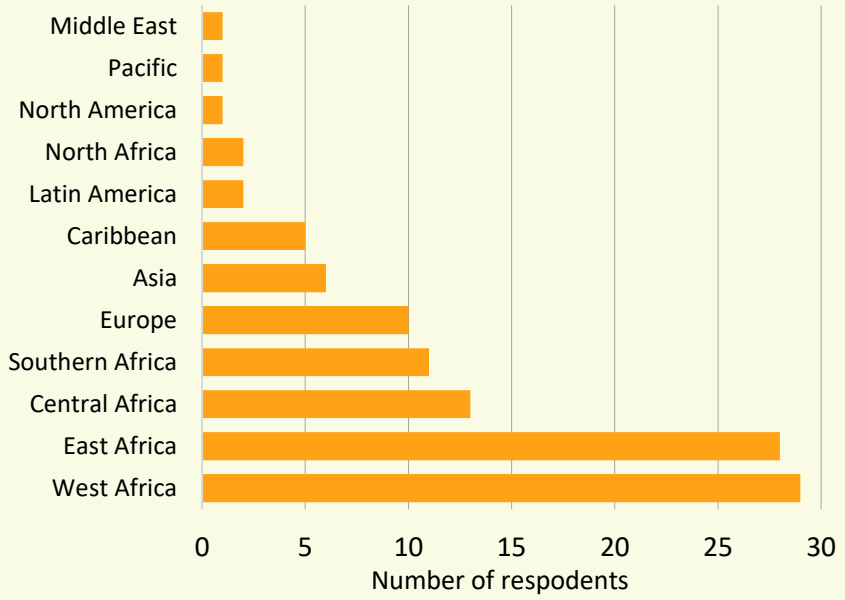


Most respondents presented themselves as "entrepreneurs", as "business persons" or as "digital agriculture specialists", with a second group made up of development practitioners, extension agents and trainers. The third largest group included researchers, teachers, and education specialists. Logically, most of them work in private enterprises, with a much smaller group working in the public sector, farmer organisations, or in research institutes. These are found all over the world, with some respondents and their organisations working in the Pacific, the Middle East or in Latin America. Most of them, however, are based and work in Africa – mostly in East and West Africa. This is aligned with the findings of the report itself:



considering the whole continent, East Africa has a longer history, and the digital innovations are more known, and more widely used. West African countries are "younger", with relatively newer solutions – but with many more of them.

Figure 4: Operational areas of respondents



3 How did people receive the report?

3.1 Communicating the report

Once completed and officially launched, *The Digitalisation of African Agriculture Report, 2018–2019* was announced and included in both the English and French pages of CTA's website. Next to this, CTA's communications team started a comprehensive campaign on social media, mentioning the report as part of CTA's activities and targeting the key stakeholders in the field.

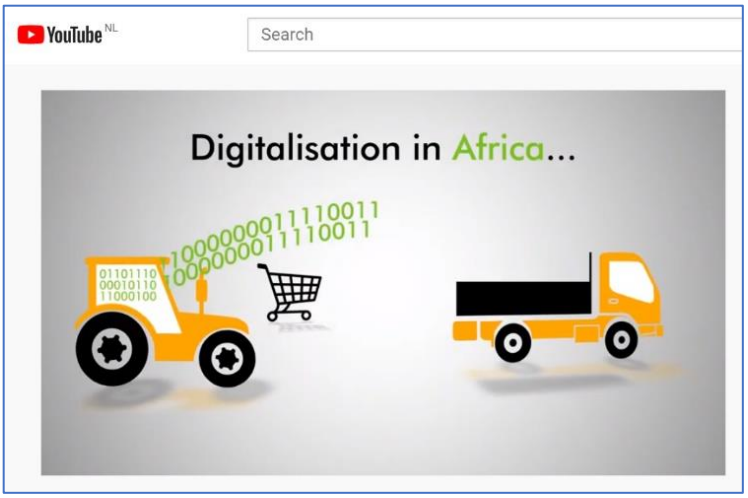
A total of 63 tweets were shared since May 2019, all of them with the hashtag #D4AgAfrica. These had 324,139 impressions and 7,716 total engagements. As seen in Table 1, these tweets were shared many times.

Table 1 Social media

Retweets	Replies	Likes	URL clicks	Hashtag clicks
1,171	36	2,202	807	292

The CTA campaign also included the production and dissemination of a short video, specifically focusing on the report (and including a link to the full report on the Internet), which was uploaded on YouTube in June 2019. The video has been seen 2,159 times – a total of 64.4 hours.

The results of this campaign were first seen in the number of visitors reaching the CTA site. Between the first week of May 2019 and the last week of April 2020, the page presenting the report in English (www.cta.int/en/digitalisation-agriculture-africa [no longer accessible]) had a total of 14,594 pageviews, and the French language page accounted for another 762 pageviews. The number of persons downloading the report on the sites of other organisations would need to be added here: a simple search on the Internet shows that the report has also been mentioned, shared, and added to the websites of organisations such as the Food and Agriculture Organisation of the United Nations (FAO), the Alliance for a Green Revolution in Africa (AGRA) and many others. Being a digital first product, 500 copies of the full report, 500 copies of the executive summary in English and 200 copies of the executive summary in French were printed which have been fully distributed.



Another interesting indicator is the number of times that the report has been downloaded. Considering only the number of times counted by CTA's site (and not the other repositories where it is also possible to download it), the PDF version of the report has been downloaded more than 34,000 times, as shown in Table 2.

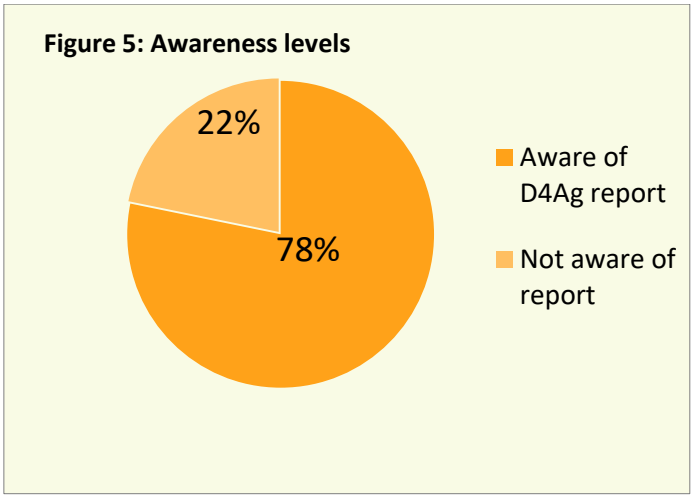
Table 2: Downloads

Versions of the report	2019	2020	Total
The Digitalisation of African Agriculture Report 2018–2019: Executive summary	2,104	967	3,071
The Digitalisation of African Agriculture Report 2018–2019	21,415	6,658	28,073
Rapport sur la numérisation de l'agriculture africaine 2018–2019 - Résumé	2,458	851	3,309
Total	**25,977**	**8,476**	**34,453**

3.2 Awareness on the report

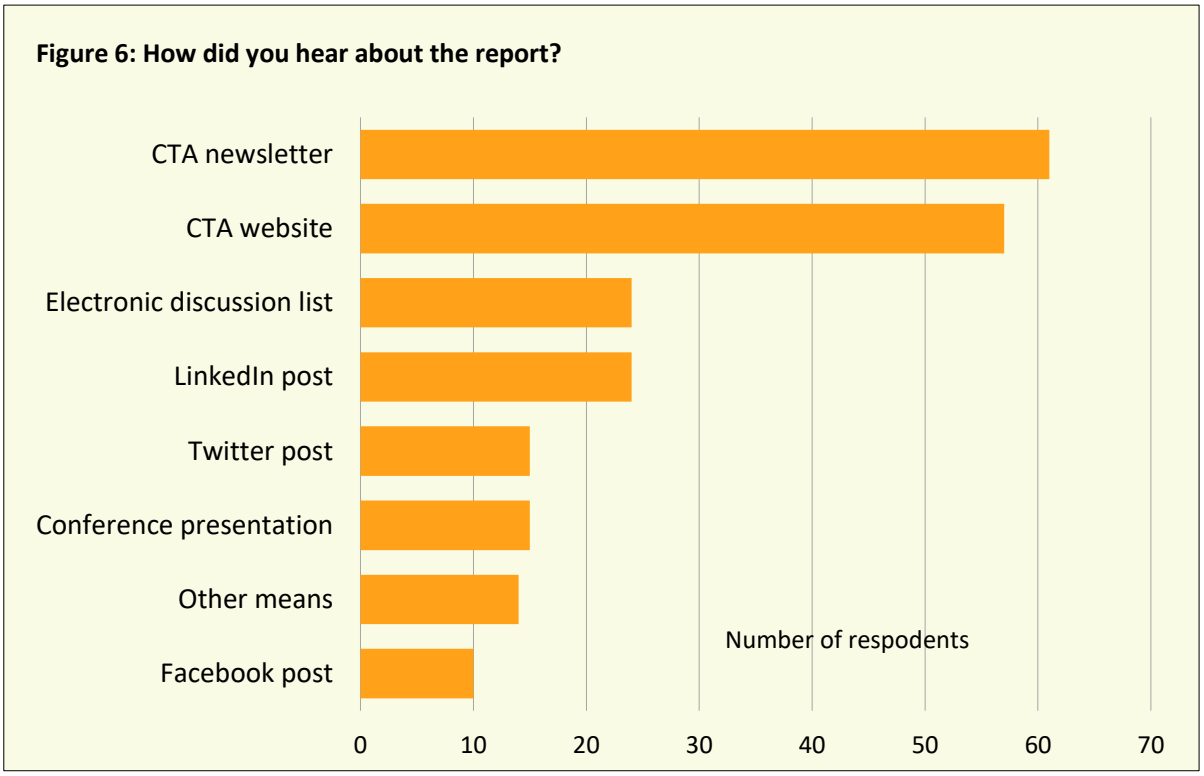
With these very high numbers, it was thus slightly surprising to see that not every one of those who received the survey had heard about the report (although it is also very positive to see that all those who mentioned not knowing the report also indicated that they would be interested in reading it). While 78% of those who responded to the survey had heard about it, 22% had not. This is a significant figure – since the survey targeted the same audience as the report, and that it was shared in very similar ways. A possible explanation is that many of the intended readers of the report, being older, heard about it in conferences or events, while the survey reached others via social media. It may also be necessary to consider that the survey was shared during a relatively short period of time, and several months after the report was launched. In any case, and while the absolute number of those responding to the survey is

much smaller than those reading the report, these relative numbers show that CTA could have thought of additional distribution mechanisms.



3.3 Channels for accessing the report

This analysis benefits from a closer look at the opinions of all respondents. When asked "How did you hear about the report?", most of them mention CTA's website and CTA's newsletter. So in spite of the energy and time dedicated to social media, and to more "modern" ways to share information, the more traditional mechanisms which CTA has been using for many years are still useful for reaching a large number of persons. Having built it over a long period of time, CTA has a long list of subscribers (which before included postal addresses, and later mostly considered e-mail addresses). CTA's relative "youth" in social media is reflected here.

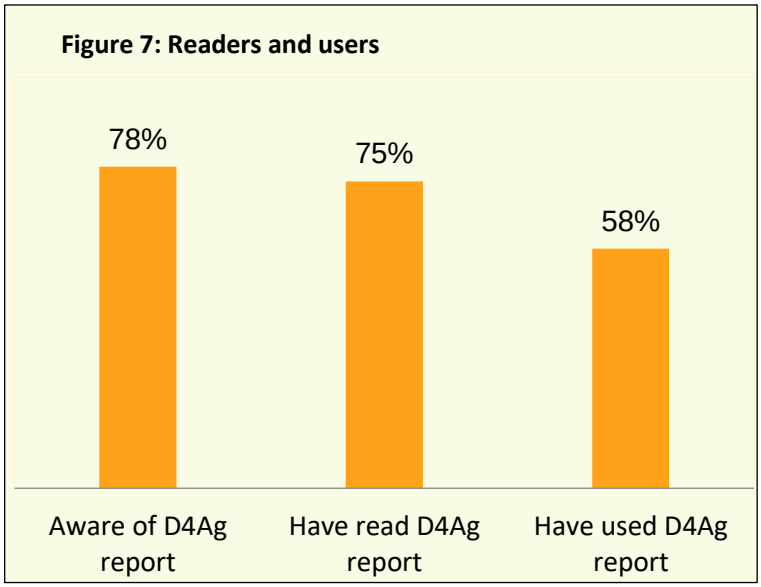


"I have just graduated; I am not working yet. But I studied agriculture, and I have been very interested in CTA for some time, so I follow you on social media. And I used to get the newsletter, so that is how I heard about the report. I decided to download it, go through it. I shared I with some people. The only problem was that the report is big, the file is heavy as a PDF, so that made it difficult to share… Not everyone could get it from me." – Survey respondent

3.4 Reading and perceptions of the report

Logically, not everybody who heard about the report, or who saw one of the messages posted on social media, went on to read it. But a high percentage did (75%) and those who mentioned not having read yet all said they were going to do it. It is impossible to generalise and say that all those who visited CTA's website pages, those who heard about the report on CTA's newsletter or social media, went on to read it. But the figures shown in this survey indicate that a large percentage of those who heard about the report did read it – and benefitted from it (see Figure 7). Extrapolating this to the over 34,000 downloads will translate into over 25,000 people reading the report within the one-year period.

Just as interesting is to see that a significantly high percentage of those who went on to read the report, read the whole version or the executive summary (see Figure 8). The CTA team saw many discussions when this project started, with the need to include as much information as possible, but at the same time considering the, intended target audience (knowing that many groups would not have time to read a thorough and comprehensive report). This survey has shown that it was worth covering different subthemes and exploring them in detail – especially considering that this was a baseline report (so future editions, focusing on a smaller region or on a particular subtheme, could mean preparing a smaller document).



Most people read the electronic version they downloaded from the CTA website and only 10% read a printed copy. This is not surprising, considering that, aiming for a faster, cheaper, and more efficient distribution, only a very small number of copies were printed and distributed. A few respondents also mentioned reading the report from USB sticks (or memory cards) distributed by CTA in a few events, but only in limited numbers.

Figure 8: The version of D4Ag report read

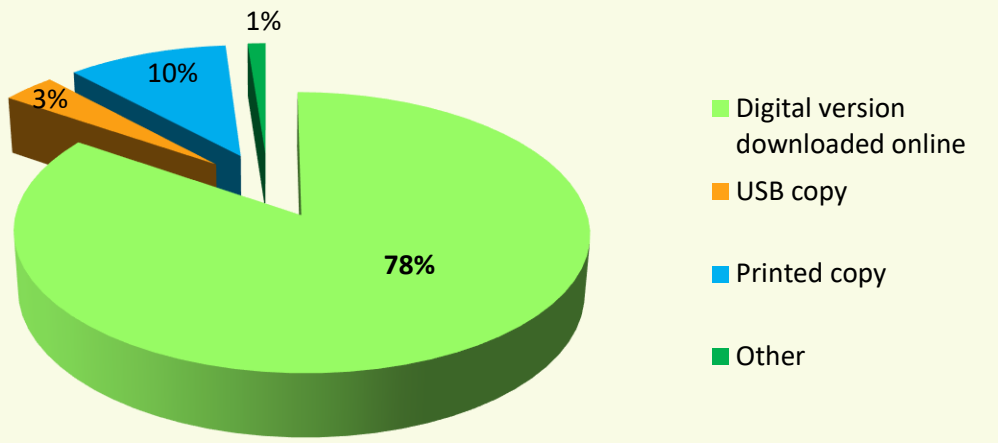
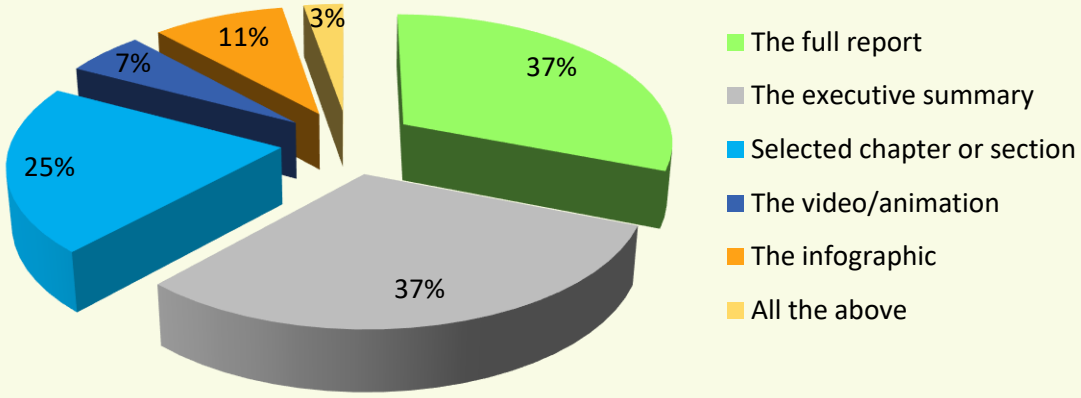
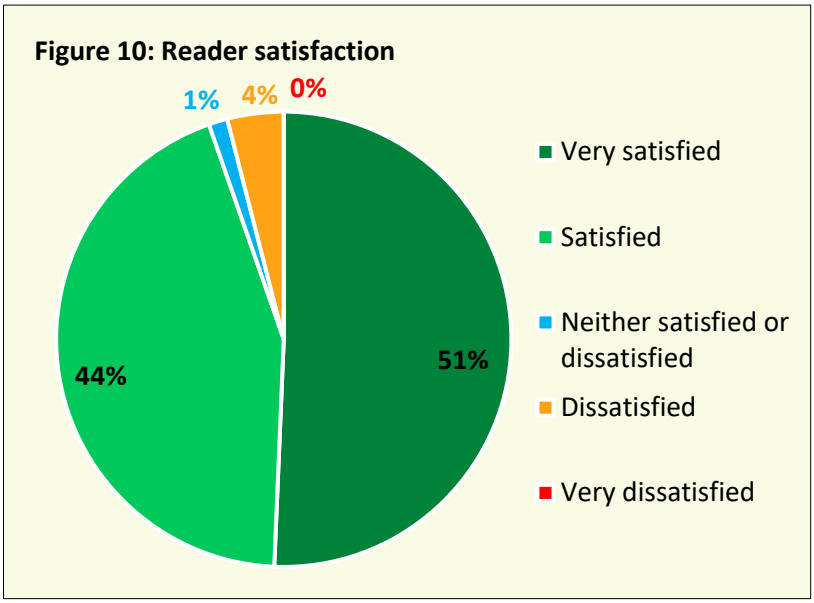


Figure 9: The format of D4Ag report read



More interesting, of course, is the readers' perception of the report. As seen on Figure 10 on the right, 51% of all respondents mentioned being very satisfied, and an additional 44% of them said they were satisfied. As stated by one of the respondents, "The report is very inspiring and a mind changer, as it touches many part of agriculture that has to be impacted and it inspired me to stand up and take action in the field of agriculture, this is such a good and reasonable report".

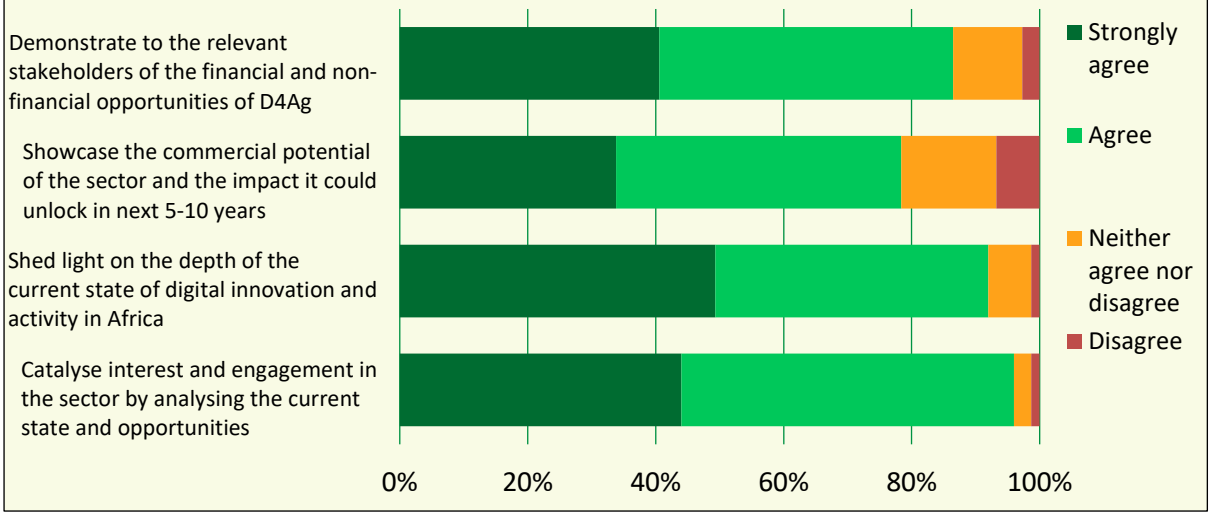


According to another reader, "The report is a very handy one for those that want to see a revolutionary African agriculture in all ramifications", while others highlighted that it was detailed and informative, or "very easy to read but at the same time content-rich".

This was very well received by CTA: "This is what we wanted; this is why we spent so much time and energy, and it is very gratifying". The readers' opinions confirmed some of the decisions that were made almost two years ago, and the effort put in preparing a report that would look at the whole continent, cover separate areas with a comprehensive approach, and share information in an easy-to-read, accessible manner. The intention was to "present the necessary data as a story, and not as a traditional research paper", and to produce a true baseline report on the sector, and not highlighting one particular tool or solution, something that "others had already done in the past (including CTA), but nobody had taken the comprehensive view we took in this report", concluded Benjamin K Addom, the CTA's lead of the report. This was clearly appreciated by all readers.

Last, and aiming at relating their view with the specific objectives of the report, as outlined in the report itself, readers were asked if they thought that these different objectives had been met. As seen on Figure 11, almost all of them either "agreed" or "strongly agreed" with the objectives. It is thus possible to conclude that the report did catalyse interest and engagement in the sector by showing the current state of digital agricultural innovations in Africa, showcasing the commercial potential of the sector, and the many financial and non-financial opportunities within the continent.

Figure 11: Were the objectives of the D4Ag report achieved?



While similar numbers were seen for all four objectives, respondents had a less positive opinion in relation to one of them. As one of its main aims, CTA's report wanted to strongly demonstrate the commercial potential of the sector and show the impact that it could unlock in the coming years. Most respondents consider that this objective was met, but the total number who "strongly agreed" was the lowest, and there were more people who were not really convinced. This confirms the fears of the CTA team few months after the launch of the report. As mentioned by Benjamin Addom, "We could not find enough data to support this, and effectively demonstrate the commercial potential." From CTA's work, we believe there are several isolated and anecdotal impacts of digitalisation on agriculture, but it has been difficult to prove this. So, while the donors and international development organisations have laid a strong foundation by proving the development potential, it is still difficult to prove the market/commercial potential due to lack of scientifically verifiable data on impacts. This is a grey area for exploration within the D4Ag domain, and an avenue to transform investment models.

4 Are readers using the report?

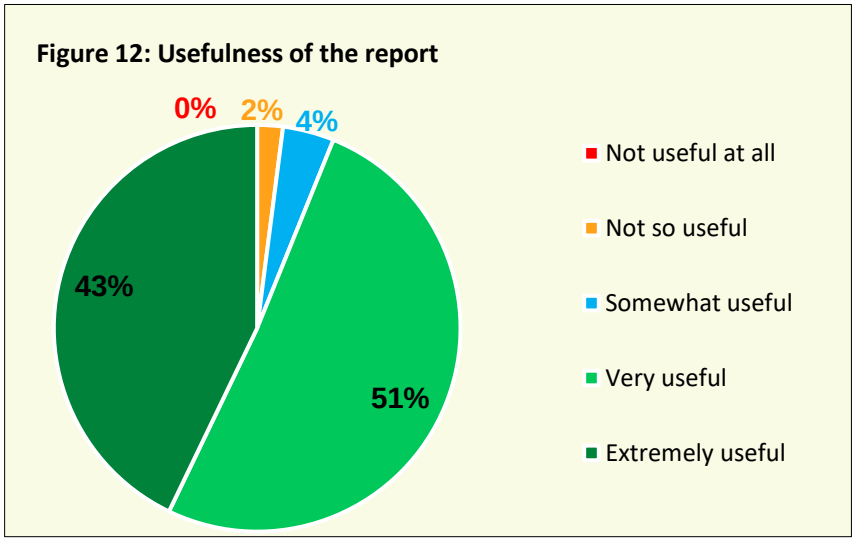
4.1 The usefulness of the report

"This is a quite useful resource"

"I really appreciate the great ends you went to create the Digitalisation Of Africa Report and it has contributed immensely to the work we are doing to help small holder farmers in rural Kenya. Thank you for the job well done"

"Excellent report and a point of reference when it comes to digitisation and use of 4IR technologies"

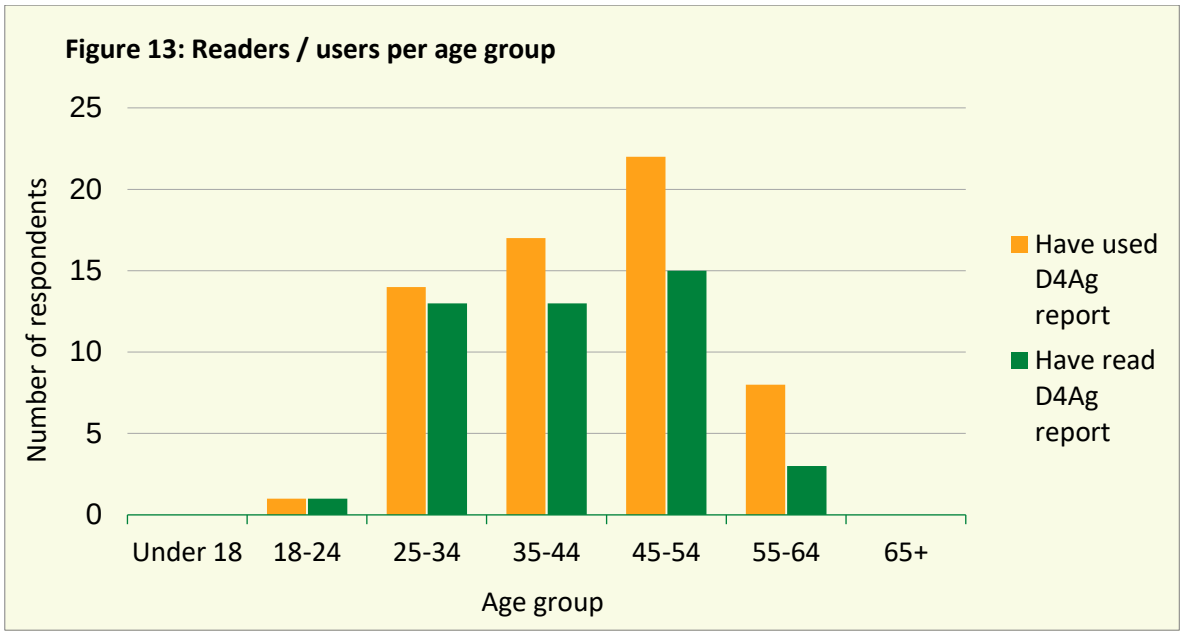
CTA received a lot of positive feedback on how readers have been using the D4Ag report and its usefulness. Comparing the opinions of all those who mentioned using it, or trying to use it as part of their day-to-day activities, it is interesting to find an absolute majority saying that it is "very useful" or "extremely useful". Again, some of the explanations for this considered the format and the general layout, or the way the information was presented. But other readers pointed at the content as the most important reason.



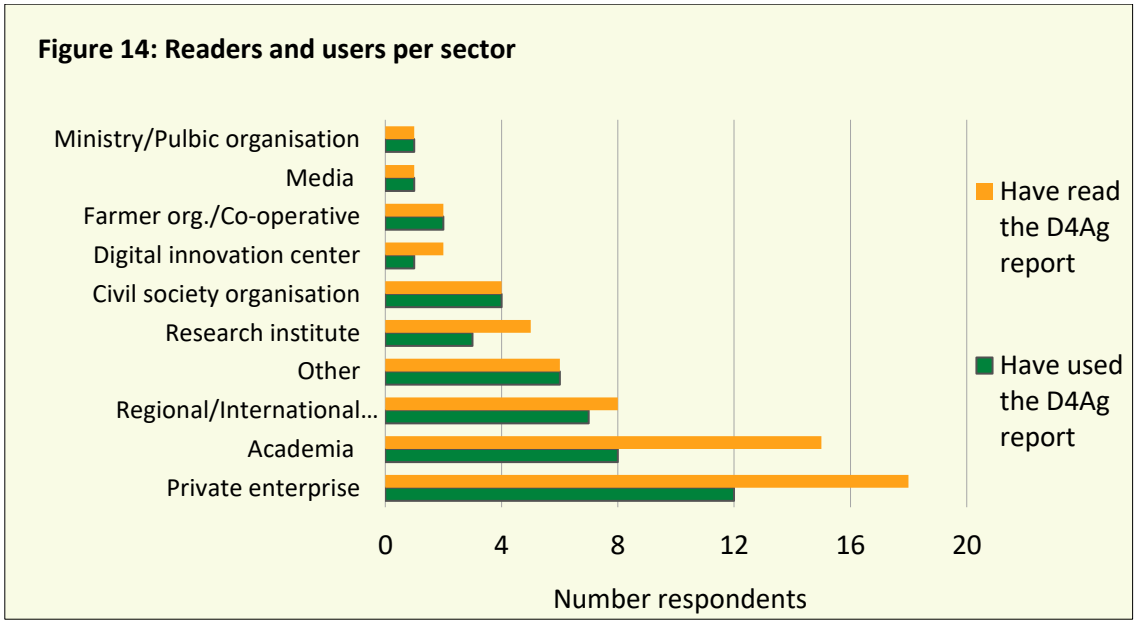
> *"The CTA/Dalberg report provides the D4Ag landscape and highlights the benefits of digitalisation, which will enable us to engage with governments, the private sector and donors around specific projects"* – Enock Chikava, Deputy Director for Agricultural Development, Global Growth & Opportunity at the Bill & Melinda Gates Foundation

But equally positive was to find that many people had read the report, and most of them were or are using it. As mentioned above, and just as the team expected, the survey found that not all those who knew of the report went on to read it – and a slightly lower number but positively, more than half (58%) of those who have read the report mentioned that they have used the report as part of their work, or to improve the work they do, and continue to do so today.

As shown below, the figures on reading and usage of the report can also be disaggregated in different ways: considering the age group of respondents, their occupation, or the region where they work. Figure 13 shows that the distribution of those who have read the report and those who have used, according to age group, is very similar, with most of them found in the range that goes from 25 to 54 years.



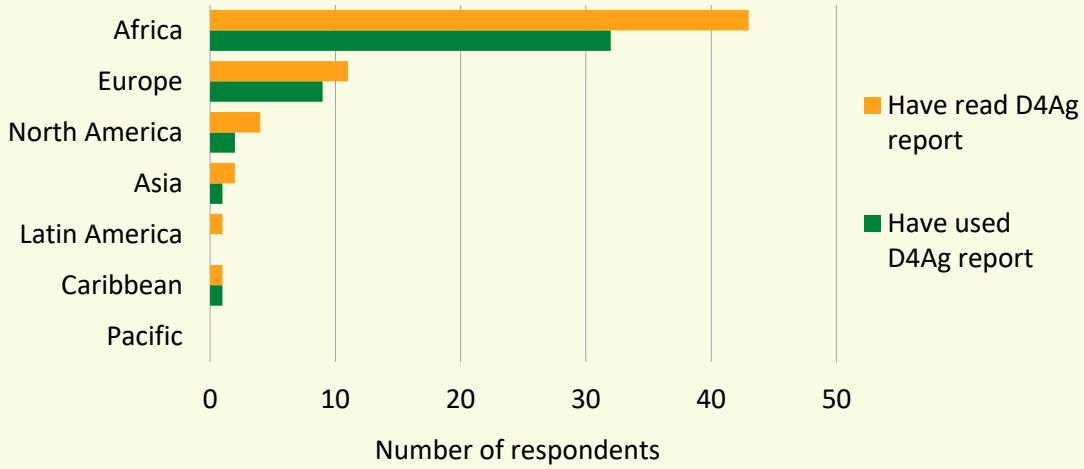
In the same way, there are more readers and "users" working in academic institutions and as part of private enterprises (Figure 14). The challenge of demonstrating the commercial and impact potentials of the sector may be related to the trend in which more readers are from academia and the private sector. Researchers may be reading and using the report with the goal to prove or disprove the impact potential of digitalisation on agriculture. Investors and other private sector partners may also be interested in reading and using the report to explore the investment potential. Both in terms of age and of occupation/sector, however, the difference between readers and users seems to be bigger – showing that few months may be a too short period for putting the ideas contained in the report into use.



In terms of geographical distribution, most of the people that read or used the report are based or working in Africa. The large presence of the African based readers and users of the report is primarily logical, considering that the content of report is focused entirely on African

agriculture. This does not mean that the knowledge so produced was not relevant for agriculture and agribusiness in other continents. The somewhat reasonable number of readers and users of the report who are based in Europe points to this assertion.

Figure 15: Readers and users per geographical region

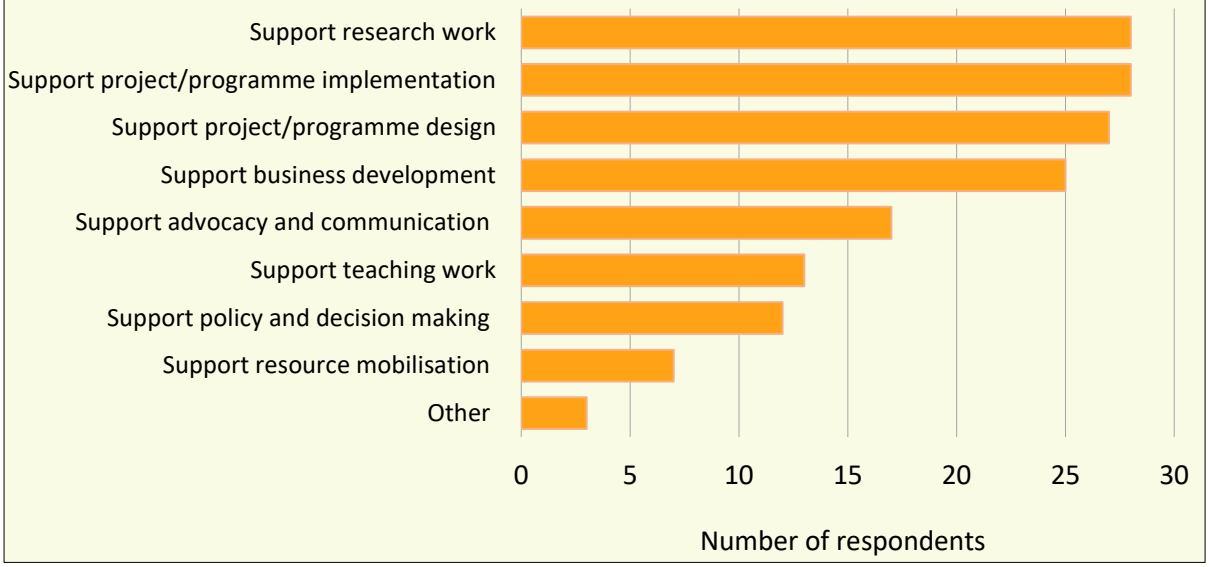


4.2 How the report is being used

> *"This report is going to help solve some of the problems we have, this is the main reason I decided to read. Without this report, not many people would know what is happening"* – Survey respondent

Readers are using the report in many ways. Logically, this depends on the individual and on the organisation where he or she works. The largest number of people mentioned that the report has helped them with their regular research activities and with the design and implementation of specific projects or programmes. The report has also been useful in supporting private business development generally, but possibly including agtech start-ups or agribusiness initiatives of young people as the usage of the report by young people (indicated in Figure 13 above) was generally impressive. Though not so much, the report is also being deployed in supporting advocacy and related communication activities. (This, of course, depends on who the readers are.)

Figure 16: Purpose for which the D4Ag report was used



The report made seven key recommendations, and readers found that some are more relevant than others. But there is a general recognition that the recommendations are useful and that readers are interested in following them – as highlighted by many different persons.

> *"We fully endorse the key recommendations made in the D4Ag report as this sector will not develop unless a wider coalition of stakeholders come together to create an enabling ecosystem for digitally-enabled agriculture"* – Parmesh Shah, Global Lead for Rural Livelihoods and Agricultural Jobs at the World Bank

> *"The landmark report provides desperately-needed intelligence on the market of D4Ag solutions in sub-Saharan Africa. Stakeholders across the sector need to understand the size, character, and coverage of the market to optimise interventions. I'm sure that 5 years from now such solutions will be adopted at scale"*– Christian Merz, Senior Advisor at the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ)

The increased use of the report for research as shown in Figure 16 above also confirms one of the seven recommendations to invest in research and knowledge agenda. More scientific work needs to be done in the sector, and the D4Ag report acts as an excellent baseline, not only in Africa but globally.

All those who responded to the survey were asked to rank the different recommendations based on their work, from the most to the least relevant (1 being most relevant, and 7 least relevant). A combination of the opinions of all those who responded put them in the order shown in Table 3. The results show the importance that respondents placed on the business model sustainability, human capital development, and the impact on less-served populations.

Table 3: Recommendations, ranked

Recommendation	Order	Average ranking
Drive greater business model sustainability	1	3.0
Develop human capital at all levels of D4Ag ecosystem	2	3.2
Create greater impact by bringing D4Ag to less-served populations	3	3.3
Invest in the missing middle infrastructure	4	4.1
Invest in good data stewardship and design for risks	5	4.3
Invest in the D4Ag research and knowledge agenda	6	5.0
Develop an alliance of key stakeholders	7	5.0

In any case, as the different respondents mentioned, they are mostly interested in all recommendations: "My organisation would like to take up all of the recommendations, through collaboration with umbrella organisations that represent the interest of farmers." And when asked to describe how they are taking these ideas further; the responses were many. In short, "We are interested in…":

- promoting bundled solutions / D4Ag platforms instead of single solutions.
- investing in the D4Ag research and knowledge agenda.
- developing e-Extension platforms to serve smallholder farmers. We can have a greater impact by bringing D4Ag to less-served population.
- develop an alliance of key stakeholders, drive greater business model sustainability.
- organising seminars for discussing and sharing data and experiences.
- developing human capital at all levels for a D4Ag ecosystem.
- pivoting our agritech business in a way that will make it profitable while impacting the community positively.
- exploring how technology can be used transversely in other social and production sectors.

In order to do this, respondents saw the need to build on the information available, collecting new success stories, contrasting the information provided with the results of new initiatives, and also "using new and better indicators to assess what we do".

> *"Our company in Zambia has invested in small unmanned aircraft system, UAS/Drones with appropriate sensors to develop aerial crop agronomic solutions for small-scale farmers which in turn will increase the yield and save their crop inputs. Among others we have taken up the recommendation to invest in the D4Ag research and knowledge agenda. However, for the agronomic development and adoption we need regular and reliable research support to correlate with local crop vegetation index algorithms based on our local conditions. Therefore, we urgently need support from our central and local government on the above matter where the gap is huge."*

Contacted a couple of weeks after the survey was closed, one of the respondents made an important point: "considering the situation we are all in right now, the recommendations are

not enough anymore. My behaviour and that of all my colleagues has changed with COVID-19… we need new analyses, update the knowledge we have, and create more resilient systems…"

This comment however highlights one of the ideas considered when the report was originally conceived – that this is not a final document, but the first step of an initiative that needs to continue. The seven recommendations of this baseline report are generic and should be applied under changing conditions including the current COVID-19 pandemic. The recommendation "invest in the missing middle infrastructure", is a typical example for building resilient systems. Data is critical in responding to the current pandemic. Investing in the appropriate data infrastructure is key for the continent to respond to the impact of a health problem on the agricultural sector. The recent locust invasion across the eastern part of the continent also attests to the need to build a robust data infrastructure to provide, trends, insights, early warnings among others.

5 Interest in sustaining and building on the report

A key recommendation from the Advisory Council that guided the production of the report was to ensure that this report is not "one-shot" but sustained and scaled to other regions. As a result, the survey also sought from the respondents about their interest in similar reports in the future and their willingness to contribute to such reports. Recognising that this was a very useful report, respondents saw the need to continue it.

As some of them said:

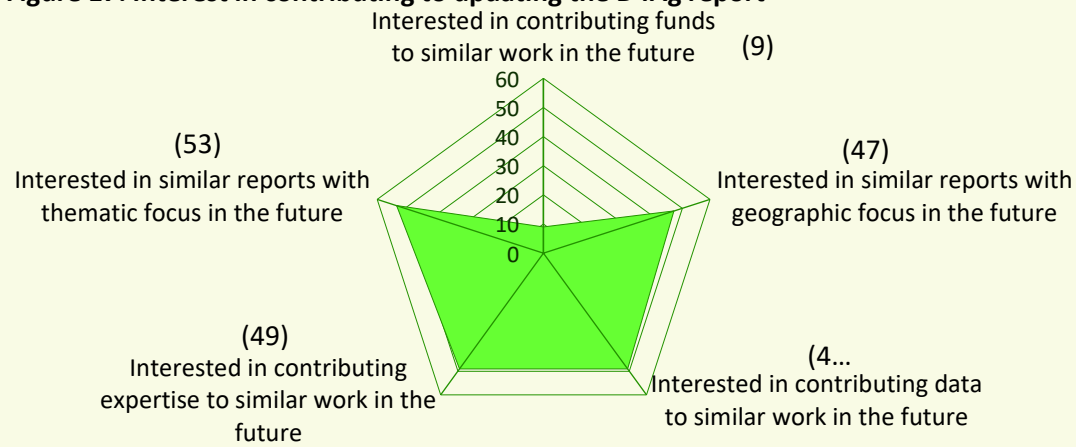
> *"There is the need for replicating such informative report, I am ready to support such a venture in the near future. I thank CTA and team for the great efforts in bringing out such a piece."*

> *"There is a need for the report to be updated in the future. For example, we should have a 2020–2021 version".*

When asked about the possibility of a new publication during an interview, one of the respondents in Nigeria stated that:

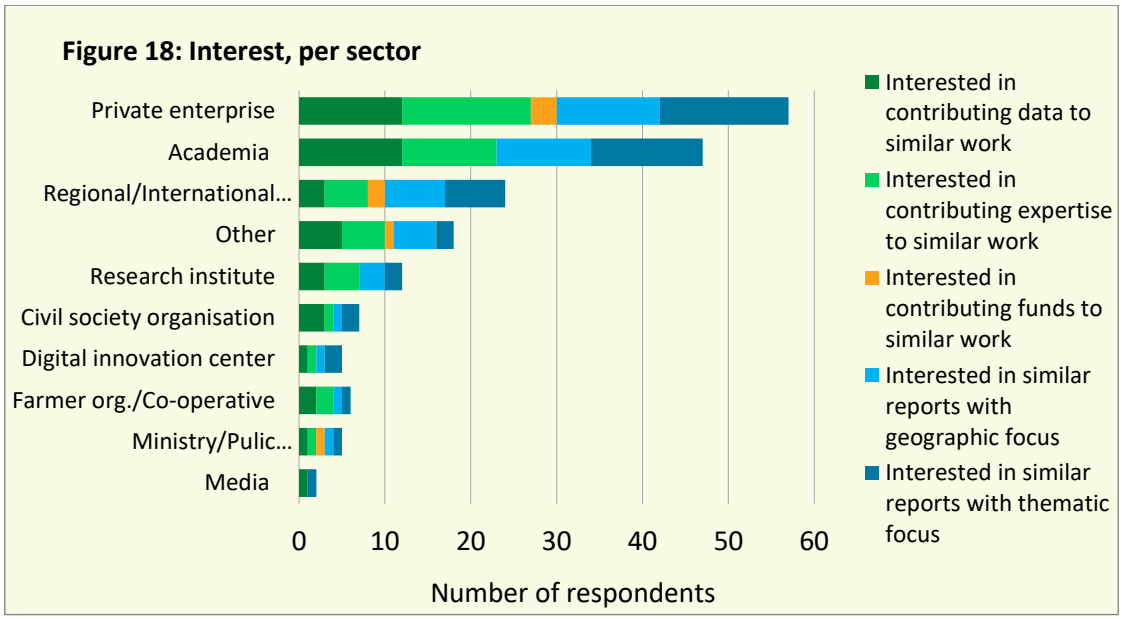
> *"all other organisations should do what CTA did for the betterment of farmers in Africa. It would be very good to continue this initiative. We need to make sure that digitalisation is adopted, and that these tools are used. The main problem we have is that we are still living in the analogue era. But we can show progress, and help those farmers who want to produce much more…"*

Figure 17: Interest in contributing to updating the D4Ag report



A very high percentage considers that other organisations should take the lead and prepare similar reports and build on the work started by CTA. Most interestingly, however, is that most respondents are willing to contribute to these new efforts and help prepare complete and comprehensive documents. As shown in Figure 17, almost half of all respondents is interested in contributing with data and information, and a similar number is interested in sharing ideas and opinions based on his or her expertise. The lowest numbers – perhaps not surprisingly – refer to a financial contribution. Not many readers or users of the information provided here are able to support a similar effort financially.

These numbers are even more interesting when compared to the roles and responsibilities of each individual, and to the specific focus of the organisation where respondents work as shown in Figure 18 below – only fractions of individuals working at private business enterprises, regional/international or donor organisations/institutions and ministries or similar public entities will want to contribute funds.



5.1 Future reports

All readers would like to see new reports with a geographic focus. At the same time, a new report should give "more opportunity to the countries which attract investors such as the Democratic Republic of the Congo, Brazzaville, Niger, Guinea-Conakry, etc.". Others emphasised the content: a new report has to focus on the ongoing adoption of all tools and techniques, showing how and why are farmers adopting them, and showing what effects these have – even in those cases when adoption is not so high. Others go a bit further:

> *"Success stories are surely encouraging and always good to read. However, there can be a small corner for failed projects as well to portray an example of what ICT4Ag/D4Ag feature/aspect could not be implemented yet in some regions...*

And it is also interesting to hear what readers are going to do, on their own:

> *"What I am planning is not to go to the farmers directly. Farmers cannot afford to buy these tools. They do not have the capital. But I want to find a better way to engage farmers so that they use these modern technologies. Perhaps find a way for them to rent them or find a cheaper price. Or help them work as a group. A group of farmers can rent, share... Or I need to engage our government, get to make farmers aware of what the options are. This is important in this area, get them to modernise.*

> *"Then they can agree to adopt an equipment. If they agree to use it, then we find a way for them to get equipment with a cheaper price, perhaps the government can subsidise. Or maybe another organisation like an NGO, could provide this equipment".*

And at the same time hear their willingness to contribute to similar initiatives:

> *"I am ready to provide my professional expertise!"*

6 Conclusions and recommendations

Digital innovations are breaking barriers and transforming businesses globally, but much was not known about the state of such innovations in enabling the transformation of agriculture

in Africa. *The Digitalisation of African Agriculture Report 2018–2019* was a real 'eye opening' knowledge product that showcased the state and potential of digital innovations to transform African agriculture.

The report garnered a large patronage in Africa and beyond. This is evidenced by the large number of people from diverse stakeholder groups including students and young people, and cutting across private, public and international/donor organisations that received the report, read it, and most importantly used or are using it to benefit their various works – especially supporting research activities, project/programme design and implementation as well as development of private business initiatives. The high level of satisfaction after reading or using the report points to the general relevance and acceptance of the report by the many different stakeholders or professionals globally.

All seven recommendations made by the report are important and being implemented with those concerning business model sustainability, human capital development and the impact of digital innovations on less-served populations leading the way. This is an indication of the high relevance attached to the report, and the potential large impact it has had or will be having on the work of different users with the target of transforming African agriculture and enhancing the benefits/revenues obtained by the sector players, particularly farmers. It is evident that the objectives of the D4Ag report have been achieved, and that CTA has succeeded in catalysing interest and engagement in the D4Ag sector in Africa and elsewhere, inspiring interests from different stakeholders to contribute data and expertise to update or support similar reports on other continents or themes. CTA's initiative and investment in that agenda has yielded the anticipated dividends and has further added to its legacy.

Going forward, and with the disappearance of CTA's thought leadership on the subject, it is recommended that other organisations take the lead to build on the foundation laid by:

- Following up on the seven recommendations of the report and taking a coordinated approach to ensure that actions are taken on each.
- Identifying and building the resource base – a kind of digital agricultural knowledge and innovation hub, to allow for a regularly update of the data to reduce the current duplication.
- Engaging other international/UN organisations to scale the model to other continents and eventually on a global scale.
- Mobilising the necessary financial resources – both private and public to sustain digital agricultural initiatives.
- Engaging in an aggressive and continuous promotion when such reports are produced in the future to ensure maximum adoption and use.