

Summary of the 10th eConversation, 2nd Series: Week 2

Collaborating organisations

This eConversation has been organised by the [Commonwealth Secretariat](#) and the [Digital Agri Hub](#) in partnership with [AGRA](#), [Farmerline](#) and [DIASCA/GIZ](#).



eConversation framework

Data has become the fuel for economic growth for many economies today and the data economy is likely going to determine the next world order, much like the role that the oil industry has played in creating economic power players in the past. Data is also the rail on which digitalisation runs and the bedrock for emerging digital technologies such as artificial intelligence (AI), machine learning, blockchains and internet of things that are enabling availability and access to information.

Agriculture is increasingly data-driven and considering the huge potential of agricultural data for countries, multiple stakeholder groups – farmers, governments, non-governmental organisations (NGOs), agribusinesses, donors, foundations, investors, researchers, digital platform operators, international organisations and technology firms – are each investing in data collection, curation, processing, storage and sharing in a typical national agricultural data ecosystem.

However, these data systems are often fragmented and built in silos without interoperability. Data remains duplicated across government agencies, research institutes, and private actors, making it difficult to build a full picture of food production, markets, and natural resources at national level. In times of crisis—whether drought, pest outbreaks, or global price shocks—this lack of integration slows down responses and weakens evidence-based policymaking. Without a structured and coordinated approach to data management, the agricultural sector risks operating in the dark. The result is operational inefficiencies, increased costs, revenue losses, and reduced trade and investment both within and between countries.

The consequences extend to sustainability and innovation. Poorly managed data means missed opportunities for climate adaptation, inefficient use of land and water, and limited progress toward national and global sustainability goals. Researchers, startups, and agribusinesses struggle to innovate without open, interoperable datasets. In short, the absence of a country-level framework that

brings together all the key agricultural data—collected by governments, research institutions, private companies, and even farmers themselves—into a coordinated, standardised, and accessible system is more than a technical shortfall—it is a strategic vulnerability that undermines resilience, competitiveness, and equity across the entire food system.

Through the Commonwealth Connectivity Agenda for Trade and Investment (CCA) programme, the Commonwealth Secretariat launched the **National Agricultural Data Infrastructure (NAGDI)** initiative in September 2023. The vision of NAGDI is to strengthen and harmonise existing individual data systems at country level through an interoperable national data infrastructure, enabling interconnected infrastructure at regional and global levels, thereby creating a superhighway for secure data exchange within and between countries, and across regions for macro-level decision-making. NAGDI is not a Digital Public Infrastructure (DPI), but an approach to delivering DPIs for agricultural data management at country level. NAGDI is likened to any national public infrastructure such as transport, telecommunication, energy, etc. NAGDI has been conceptualised to cover four components, namely (i) systems and technologies, (ii) principles and policies, (iii) marketing and business, and (iv) governance and administration.

If carried out well, a functional NAGDI can become a cornerstone of agricultural transformation. It would lay the foundation for independent data verification, giving investors the confidence to support Micro-, Small and Medium-sized Enterprises (MSMEs) and startups, while also improving access to finance and fostering innovation. By bringing together multiple data sources, it would enable more accurate, reliable, and evidence-based policymaking—ensuring governments are equipped to respond quickly and effectively to challenges in the food system.

NAGDI would also empower countries to navigate well-intended but disruptive external regulations, such as the European Union Deforestation Regulation (EUDR), by

facilitating access to credible and verifiable data. At the same time, it would strengthen national sovereignty in the digital domain, ensuring governments retain control over their agricultural data. Most importantly, it would prepare countries to fully harness the power of Artificial Intelligence and other emerging digital technologies, all of which depend on large volumes of accurate, trusted data.

Looking beyond national borders, interoperable NAgDIs across regions would create a secure “data superhighway” for exchange within and between countries. This would unlock new opportunities for macro-level decision-making, while serving as a catalyst for deeper intra-regional trade and investment. In this way, NAgDI is more than infrastructure—it is the backbone of a smarter, more connected, and more resilient agricultural future.

About the events

The Commonwealth Secretariat developed a **Policy Guide for NAgDI** in support of intra-Commonwealth trade and investment. However, the policy extends beyond the Commonwealth. Prior to and alongside the launch of the Guide, the Commonwealth Secretariat and Digital Agri Hub, in partnership with AGRA, Farmerline, and DIASCA/GIZ, hosted this eConversation which consisted of a series of events including e-discussions and webinars unfolding over a period of four weeks. The initiative provided a two-way dialogue to assist the Secretariat in establishing the business case for private

sector investment in NAgDI for interested countries, as well as raised awareness of the opportunities that were and would be available. The flow of events mobilised the audience around the initiative and engaged the parties during the launch of the Guide and its rollout activities.

The activities combined online and in-person events to bring together stakeholders from the Commonwealth and beyond – public sector, international organisations, development partners, private sector investors, and others interested in developing markets on the subject.

Week 2 Summary of the eConversation (Webinar & e-Discussion)

A

Summary of the Webinar – Week 2

The Webinar on 10 October was on “*From Silos to Systems: What is the Value Addition of the Commonwealth's NAgDI?*”. It provided a sneak peek of NAgDI with the holistic thinking around the term “infrastructure” and provided highlights into the Policy Guide. It also presented some of the

opportunities available for partners to explore with member countries and join forces in support of NAgDI. The Webinar was facilitated by **Benjamin Kwasi Addom**, the Commonwealth Secretariat, **Krishan J Bheenick**, KMNCB Associates.

Some Statistics on the Webinars

Date	Title	Registered individuals	Attendees %	Female	Recording
10/10/25	From Silos to Systems: What is the Value Addition of the Commonwealth's NAgDI?	60	68%	29%	YouTube

Date	Title	Attendees' age group					
		18-24	25-34	35-44	45-54	55-64	65+
10/10/25	From Silos to Systems: What is the Value Addition of the Commonwealth's NAgDI?	2%	23%	31%	14%	26%	5%

B

Summary of the e-Discussion – Week 2

Q2 What have been your experiences of DPI implementation at national level, and how have these DPI engaged with the agricultural sector?

Setting the Stage: Context and Framing

The week began with Krishan Bheenick recapping the previous week's discussion, which focused on the definitions and core elements of DPI, particularly as defined by the World Bank—namely Registries, Payments, and Data Exchange. He noted that while these elements are foundational, their application in agriculture requires adaptation to sector-specific needs, especially in facilitating data sharing across systems and functionalities. Krishan then launched the central question for the week: "What have been your experiences of DPI implementation at national level, and how have these DPI engaged with the agricultural sector?" Contributions were encouraged to address the context of local DPI cases, useful features, non-technological aspects (such as governance, equity, and business models), and practical lessons learned.

Krishan also highlighted resources for further exploration, including the DPI Map (UCL IIPP), which catalogues DPI initiatives by country and their relevance to agriculture. He encouraged participants to reflect on whether any of these foundational DPIs were already being leveraged in their own agricultural contexts.

Provocation and Deepening the Discussion

Ben Addom followed by challenging the group to reflect critically on the current state of DPI in agriculture. He argued that, despite the proliferation of digital technologies and services in agriculture (as catalogued by initiatives like Digital AgriHub), the sector is still far from achieving true DPI. Ben provocatively suggested that perhaps what

agriculture most urgently needs from DPI is robust data exchange, given the abundance of digital services that require data support. He invited participants to agree or disagree and promised to share insights from ongoing discussions in Bangalore on DPI, AI, and data in agriculture.

Practical Experiences and Case Studies

Malawi—The Human API Approach

Ronald Kondwani Udedi shared a practical experience from Malawi, where he and a colleague acted as a "Human Application Programming Interface" (Human API) to connect a farmer, Mr. Juma, with relevant digital advisory services. This involved listening to the farmer's problem, processing the information, and linking him to appropriate online platforms and local partners, such as Farm Radio Trust and CABI plant clinics. Ronald emphasized that, beyond technology, successful DPI-like interventions require formal agreements and partnerships, such as Memoranda of Understanding among service providers.

Australia and Systemic Change—A Structured Approach

Simon Cook contributed a conceptual framework for understanding digital transformation in agriculture, drawing on experiences from Australia and beyond. He suggested a four-step process for structuring change:

- Define the expected outcomes of digital transformation (e.g., improved production, sustainability, efficiency).

- Map where in the food system change could or should occur, considering all domains rather than just one's area of expertise.
- Identify how digital technology creates value in these processes—what improvements does it enable?
- Determine how this value will be captured and by whom, noting that some innovations may be disruptive while others are incremental or sustained by existing actors.

Simon advocated for mapping the wealth of experiences shared in the discussion in a logical, systemic way, to better understand the broader vision of change in digital agriculture.

Tanzania—Government-Led Digital Transformation

Omar Bakari provided insights from Tanzania, where the Ministry of ICT leads a national digital transformation process guided by a Digital Economy Framework. Each sector ministry is responsible for operationalizing this framework. Omar described a practical use case: the digital issuance of agricultural export permits, which involves seamless data exchange and workflow integration across multiple ministries and agencies.

This is enabled by a National Data Exchange platform. He noted that, while internal government data sharing has progressed, new challenges have emerged around sharing data with the private sector, especially regarding data safeguards and commercial sensitivities. Omar suggested that examining digital transformation roadmaps and business cases could help clarify how DPI differs from other digital initiatives and facilitates stakeholder engagement.

Key Themes and Insights

Digitisation as a Prerequisite

A recurring theme was the foundational importance of digitizing data—moving from analogue to digital forms—as a prerequisite for DPI in agriculture. Without digitized data, the benefits of DPI cannot be fully realized.

Collaboration and Governance

Participants repeatedly emphasized that DPI is not just about technology. Effective DPI implementation requires collaboration, formal agreements (such as MoUs), and robust governance structures to coordinate among

diverse actors, including government agencies, private sector partners, and civil society.

Contextual and Incremental Design

The conversation highlighted that DPI solutions must be tailored to local contexts. What works in one country or sector may not be directly transferable to another. Instead, DPI development is seen as an incremental, evolutionary process, with each new challenge prompting design adaptations. Participants were encouraged to learn from multiple cases and adapt solutions as needed.

Need for Analytical Frameworks

Krishan and others noted the difficulty of making sense of the diverse DPI case studies available in reports and online repositories. There was a call for the community to develop a common analytical framework or set of descriptors (3-5 key points) for presenting and comparing DPI cases, to facilitate learning and transferability.

Beyond Technology: Policy, Incentives, and Institutions

Ben Addom and others stressed that successful DPI implementation depends as much on people, institutions, policies, and incentives as on digital tools. The Commonwealth's NAgDI approach, for instance, is designed to help countries improve processes beyond just deploying technology, by focusing on governance, stakeholder engagement, and policy alignment.

Conclusion

Participants were encouraged to consult several key resources for examples and frameworks (see the next section below) while the week was set to culminate in a webinar on the Commonwealth's NAgDI approach, with the aim of comparing community insights with this emerging policy guide and continuing the dialogue on practical DPI implementation in agriculture.

Week 2 of the D4Ag eConversation provided a rich, nuanced exploration of the realities and challenges of implementing Digital Public Infrastructure in agriculture. The discussion moved beyond technology to address the importance of digitization, collaboration, governance, and context-specific design. Participants shared practical experiences and called for frameworks to better analyse and

share lessons from diverse DPI initiatives. The week ended with a sense of momentum, as the community prepared to engage further

with structured policy guidance and ongoing peer learning.

C

Week 2 e-Discussion Podcast (AI-generated)

Audio alternative: Listen to the “NotebookLM AI-generated Deep Dive” podcast based on Week 2 of the e-Discussion

(around 15 minutes): (https://youtu.be/8eW3aVFpf7M?si=BNghzLrsGbr_FupW)

D

Resources – Weeks 2

List of URLs referenced during Week 2 of the e-Discussion on D4Ag

- Access Agriculture (Malawi case study) <https://www.accessagriculture.org/>
- AgroInsight blog (Malawi farmer story) <https://www.agroinsight.com/blog/?p=1556>
- Farm Radio Trust (Malawi) <https://www.facebook.com/FarmRadioMw/posts/get-in-touch-with-us-to-know-more-about-our-services-for-agricultural-advisory-se/4034151623350187/>
- CABI PlantwisePlus Knowledge Bank <https://plantwiseplusknowledgebank.org/>
- 2nd International Conference of OFE (On-Farm Experimentation) 2023 Papers <https://hdl.handle.net/1813/116214>
- Robert Karanja Presentation (NAGDI, Africa case studies) <https://dgroups.io/g/d4ag/files/Webinar26Sept2025/Robert%20Karanja%20Presentation%20NAGDI%20September%2026,%202025.pdf>
- UNDP Report: Accelerating the SDGs Through Digital Public Infrastructure – India’s G20 Presidency <https://www.undp.org/sites/g/files/zskgke326/files/2023-12/undp-accelerating-the-sdgs-through-digital-public-infrastructure-v2.pdf>
- DPI Map (Digital Public Infrastructure Map) <https://DPIMap.org>
- YouTube: What makes DPI scale | Dr. Pramod Varma (Chief architect of the India Stack) | DPI Masterclass <https://www.youtube.com/watch?v=fc2TjULsSlc>

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