

Summary of the 10th eConversation, 2nd Series: Week 4

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 4 Summary of the eConversation (Webinar & e-Discussion)

A

Summary of the Webinar – Week 4

The launch of the Policy Guide occurred on 23 October through a hybrid event, held in person in London and online alongside the eConversation. The event also saw the release of NAgDI Explainer Animation, deep dive into NAgDI and how it will benefit member countries. Speakers included **Rajiv Babooram**, Commonwealth Secretariat, **Dreli Silas Solomon**, Embassy of the Republic of Vanuatu, **Ruth Kattumuri**, Commonwealth Secretariat, **Opeyemi Abebe**, Commonwealth Secretariat, **Benjamin K Addom**, Commonwealth Secretariat, **Celso L. Moretti**, The OpenAg Foundation, **Ville Sirviö**, Nordic Institute for Interoperability Solutions, **Lars Kahnert**, GIZ/DIASCA, and **Krishan Bheenick**, KMNCB Associates.

The final Webinar was held on 24 October and titled **From Silos to Systems: Coopetition rather than Competition?** It explored collaboration with partners around planning and implementation of DPI in agriculture through NAgDI. Possible collaborative pathways that were explored included a commodity-based approach, climate data for parametric insurance, EUDR, and opportunities for large volume of data for AI-enabled agronomic advisory services. Speakers included **Ronald Rwakigumba**, Bandung Institute of Technology & Coventry University, **Venky Ramachandran**, Agribusiness Matters, **Bharath Shankar Ganapathy**, FIDE, and **Stewart Collis**, Gates Foundation.

Some Statistics on the Webinars

Date	Title	Registered individuals	Attendees %	Female	Recording
24/10/25	From Silos to Systems: Coopetition rather than Competition?	61	59%	25%	YouTube

Date	Title	Attendees' age group					
		18-24	25-34	35-44	45-54	55-64	65+
24/10/25	From Silos to Systems: Coopetition rather than Competition?	0%	20%	26%	26%	20%	8%

B

Summary of the e-Discussion – Week 4

Q4 What are the practical applications and macro-level use cases that we would like to explore using NAgDI as the delivery approach to DPI in Agriculture?

1. NAgDI as a Delivery Approach to DPI

The week began with clarifying that NAgDI is not itself DPI, but rather a delivery approach built on DPI principles. NAgDI is seen as an “infrastructure” that enables others to build services, with four key components: Policies and Principles, Technologies and Systems, Governance and Administration, and Marketing and Business Model. This expanded view aligns with the idea that infrastructure in agriculture must go beyond technology to include governance and business aspects.

2. Launch of the NAgDI Policy Guide and Key Questions

The week coincided with the release of the NAgDI Policy Guide. The main question posed was: “What are the practical applications and macro-level use cases that we would like to explore using NAgDI as the delivery approach to DPI in Agriculture?” Participants were encouraged to discuss use cases, collaboration models, and the role of The Commonwealth and the NAgDI Community of Practice.

3. Practical Applications and Use Cases

Ben Addom emphasized that NAgDI is not for direct end-user service provision but supports service providers. A highlighted macro-level use case is enabling data analytics tools and

AI-enabled services in agriculture. The value of NAgDI is in making large, diverse datasets accessible, which can improve AI models and advisory services for smallholder farmers and service providers, reducing the cost and effort of data collection. The infrastructure allows for data exchange under agreed policies, managed by an independent entity, enabling service providers to access datasets from different regions and partners, thus strengthening AI-enabled agricultural services.

4. Analogy and Implementation Challenges

Krishan Bheenick used the analogy of roads adapted for agricultural use to illustrate how NAgDI provides the “tarmac” and regulatory framework, making DPI usable and relevant for agriculture. The conversation also touched on the “chicken and egg” dilemma: whether to scale DPI first or demonstrate value at the farmer level before scaling.

The need to document benefits from DPI investments and compare them with local needs was highlighted as a way to justify and plan NAgDI implementation.

5. Steps for Planning and Change

Prof Simon Cook's process for digital change was referenced:

- Identify expected changes from digital adoption.
- Consider where in the food system change could occur.
- Define the value proposition of digital.
- Determine how value will be captured and by whom.

The group was encouraged to discuss which use cases to prioritize and learn from existing examples in various countries.

6. International Experiences and Reflections

Sander Janssen shared lessons from the Netherlands' AgroDataCube, noting that once infrastructure is in place, new use cases emerge organically, such as environmental monitoring and farm management tools. However, it takes time for end-users to understand and benefit from new information, emphasizing the importance of starting infrastructure development early.

He also noted the lack of integrated governance for agricultural data compared to weather data, suggesting this as a gap for NAgDI to address.

7. Mali's Experience

Modibo G. Coulibaly described Mali's Agricultural Digitisation Centre, an initiative begun in 2018 that aims to transform the agricultural system in Mali and the broader region. The centre is seen as a revolutionary step for agricultural, food, and nutrition system transformation.

Overall, week 4 focused on the practicalities of implementing NAgDI as a sectoral approach to DPI, the importance of infrastructure and governance, real-world use cases, and the need for collaboration and community support to realize the benefits of digital transformation in agriculture.

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Week 4 eConversation Podcast (AI-generated)

Audio alternative: Listen to the "NotebookLM AI-generated Deep Dive" podcast based on Week 4 of the eConversation (around 15

minutes): (<https://youtu.be/4T5fbcYiHTI?si=xLERksLIJ4Tydq6C>)

D

Resources – Week 4

List of URLs referenced during Week 4 the of eConversation on D4Ag:

- Abhay T. (2025) Helping Farmers with Smart Tools - AgriTech Survey on IoT Solution for Smallholders. <https://gramdisha.org/iot-agritech-smallholders/>
- ADB (2024) Exploring the Different Financing Models for Digital Public Infrastructure and Why They Matter. <https://doi.org/10.56506/VYDL5566>
- Ardic A., Oya P.; Clark J.; Galicia R., Guillermo A.; Marin G. (2025) Digital Public Infrastructure and Development: A World Bank Group Approach - Digital Transformation White Paper: Volume 1 (English). Washington, D.C.: World Bank Group. <http://documents.worldbank.org/curated/en/099031025172027713>
- Clark, J., Marin, G., Ardic Alper, O.P., Galicia Rabadan, G.A. 2025. Digital Public Infrastructure and Development: A World Bank Group Approach. Digital Transformation White Paper, Volume 1. Washington, DC: World Bank. <https://documents1.worldbank.org/curated/en/099031025172027713/pdf/P50573984c5073b9d404b83a21198b2263e87dd.pdf>
- Gupta-jee (2025) SLM-IoT Integration for Natural Farming. <https://gramdisha.org/slm-iot-integration-for-natural-farming/>

- Schroeder K., Lampietti J. and Elabed G. 2025. 2021. What's Cooking: Digital Transformation of the Agrifood System. Agriculture and Food Series; © World Bank. <http://hdl.handle.net/10986/35216> License: CC BY 3.0 IGO.”
- The Commonwealth Secretariat (2025) National Agricultural Data Infrastructure: A Policy Guide. <https://thecommonwealth.org/publications/national-agricultural-data-infrastructure-policy-guide>
- UNDP. (2023) Accelerating the SDGS Through Digital Public Infrastructure. A Compendium of The Potential of Digital

Public Infrastructure, <https://www.undp.org/sites/g/files/zskgke326/files/2023-12/undp-accelerating-the-sdgs-through-digital-public-infrastructure-v2.pdf>

- UNDP. The DPI Approach, A Playbook (2023) <https://www.undp.org/sites/g/files/zskgke326/files/2023-08/undp-the-dpi-approach-a-playbook.pdf>
- Vital Wave, OpenAgriNet, World Bank, Gates Foundation, Co-Develop. (2025) A Digital Public Infrastructure Approach for the Agriculture Sector –. https://vitalwave.com/wp-content/uploads/2025/09/DPI-Approach-for-Agriculture-Sector_Final_.pdf

Cited websites:

- The State of the DPG Ecosystem Reports. <https://www.digitalpublicgoods.net/annual-reports>
- EPPO Global Database. <https://gd.eppo.int>
- Access Agriculture. <https://www.accessagriculture.org>

- PlantwisePlus Knowledge Bank. <https://plantwiseplusknowledgebank.org>
- The Digital Public Infrastructure Map: Tracking national-scale digital infrastructure around the world. <https://dpimap.org>
- Data for Public Good. <https://dataforpublicgood.org.in/>

Cited online multimedia

- National Agricultural Data Infrastructure explainer animation. <https://vimeo.com/1129495846>

- What makes DPI scale by Dr. Pramod Varma (Chief architect of the India Stack) | DPI Masterclass <https://www.youtube.com/watch?v=fc2TjULsSlc>

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