AGX Unconference

Nairobi 2025 | Post-Event Report

July 2025

Workshop Report

AGX Unconference in Nairobi 2025

Catalyzing collaboration and charting a course for Digital Agriculture

23-24 July 2025, ILRI Campus, Nairobi, Kenya

Hosted by:
CGIAR, DevGlobal, IFPRI, ILRI, GIZ, DIASCA, i4Ag, kuza

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Executive Summary

This report summarizes the outcomes of the AGX Unconference in Nairobi, Kenya, held on July 23–24, 2025, at the ILRI Conference Center. Co-hosted by CGIAR, the Gates Foundation, GIZ, DIASCA, and DevGlobal, this inaugural gathering convened more than 150 stakeholders—farmers, technologists, researchers, policymakers, and investors—to explore how Digital Public Infrastructure (DPI) and Artificial Intelligence (AI) can drive more efficient, inclusive, and resilient agricultural systems.

Designed as a dynamic, participant-driven event, the AGX Unconference prioritized real-world challenges, co-creation, and cross-sector collaboration. Sessions were grounded in farmer and implementer perspectives, highlighting barriers such as fragmented services, inaccessible advisory support, data governance gaps, and underutilized digital tools. In response, working groups and debates examined how DPI and AI can be responsibly leveraged to reduce duplication, improve interoperability, and empower small-scale producers.

A central theme throughout the unconference was the need to design systems that are not only technically robust, but also locally relevant, equitable, and built in the public interest. From creating localized AI models to strengthening data infrastructure and inclusive digital ID systems, participants stressed the importance of aligning tools, policies, and partnerships around farmer-centered solutions.

The event culminated in the AGX Inspire Challenge, where participants co-developed and pitched actionable, fundable ideas—one of which received seed funding to move forward. The energy and collaboration generated throughout the Unconference underscored the urgency and opportunity of collective action.

Next AGX event is in Bengaluru on October 6 - 7, 2025. We hope you will join us! Please visit the AGX Website for event information as it becomes available.

Event Overview

The AGX Unconference Nairobi 2025 was held from July 23–24 at the ILRI Conference Center and served as the inaugural event in a new global series focused on accelerating the digital transformation of agrifood systems. The convening centered on the theme **"DPI & AI in Agriculture: A More Efficient Future,"** and explored how emerging technologies can reduce duplication, increase efficiency, and deliver more equitable outcomes across agricultural value chains.

The two-day agenda was built around interactive and participant-led formats, emphasizing collaboration, storytelling, and solution co-creation. In contrast to traditional, top-down conferences, the Unconference design enabled attendees to surface real-world barriers, share local expertise, and ideate practical responses in real time.

Participant highlights included:

- **151 unique participants**: 128 unique in-person, 23 virtual
    - July 22 Reception: 51 participants attended in-person
    - July 23 Unconference: 104 participants attended in-person
    - July 24 Unconference: 96 participants attended in-person
- **Category breakdown:**
    - NGO (Non-profits, international orgs): 40
    - Consultancy: 30
    - Unreported: 21
    - Private Sector Agriculture: 14
    - Government: 11
    - Private Sector Tech (AI Models, Big Tech): 9
    - Research/Academic 8
    - Donor/Funder: 6
    - Producer/Farmer: 4
    - Extension Service: 3
    - Financial Institution: 1
    - Food Service/ Retailer: 1
    - Multilateral: 1
    - Startup: 1
    - Trader/Wholesaler: 1

- **Location breakdown**: Kenya (100), USA (12), Colombia (1), Unreported (8), Nigeria (7), Germany (5), Ethiopia (4), Tanzania (3), India (2), France (1), Netherlands (1), Sierra Leone (1), Switzerland (1), Uganda (1), UK (3), Zambia (1)
- **Gender breakdown**:
    - 76 male (50%)
    - 47 female (31%)
    - 28 unreported (19%)

Program highlights included:

- A powerful “Voices from the Field” session featuring firsthand stories from farmers and grassroots implementers
- A framing conversation on the intersection of AI and Digital Public Infrastructure, led by global experts
- Working group sessions on AI-enabled advisory services, benchmarking, localized agri-AI models, and DPI co-design
- The AGX Inspire Challenge, where teams pitched actionable ideas for mini-grant funding
  The Commons Debate, which explored digital governance and the definition of “public interest”
- A closing digital commitment wall, encouraging participants to articulate their next steps and collaboration needs

Together, these elements created a platform for conversation, coordination, and momentum, thereby laying the groundwork for a networked community committed to transforming agriculture through digital innovation.

Setting the Stage

Ram Dhulipala (CGIAR), Brian King (Alliance Bioversity International & CIAT), Dr. Timothy Mirugi (New Kenya Planters Co-operative Union)

Day 1: 9:50 AM – 10:20 AM

The inaugural AGX AI Unconference opened with a warm welcome from Ram Dulippala, Senior Scientist at ILRI and Interim Chief Digital Transformation Officer of CGIAR. He emphasized the event's unique focus on AI and Digital Public Infrastructure (DPI) in agriculture, describing it as a new chapter following the legacy of ICTforAg. Ram framed AGX as a platform to grow a diverse, global community of researchers, innovators, and practitioners driving transformation in agriculture through inclusive and responsible technology.

He shared aspirations for AGX to become a recurring platform for collaboration, with the next event potentially taking place in Bangalore, India, recognizing the surge of innovation in the Global South. He emphasized that AGX is not just about tools and systems, but about people—highlighting the importance of grassroots participation and regional leadership in shaping the future of agriculture.

Brian King, Senior Manager for Technology Integration at the Alliance of Bioversity and CIAT, then introduced a keynote address by Timothy Mirugi, Managing Director of the New Kenya Planters Cooperative Union (KPCU). Mr. Mirugi delivered an inspiring overview of Kenya's bold agricultural transformation strategy. He outlined KPCU's mission to support farmers—especially in the coffee value chain—through processing, market access, advisory services, and digital finance tools such as the Cherry Fund.

Highlights of his remarks included:

- A national plan to triple coffee production by 2030.
- Distribution of 20 million high-quality coffee seedlings by end of next year, contributing to Kenya's 15 billion tree initiative.
- Launching a youth recruitment program to hire 1,600 agronomists trained in regenerative and sustainable agriculture.
- These youth will also act as data collectors and AI tool users, feeding into a real-time, national coffee database that enhances traceability, market access, and

compliance with global trade regulations.

Mr. Mirugi called on public, private, and nonprofit actors to align efforts around DPI and AI to unlock scalable, inclusive agricultural transformation.

The tone then shifted to unconference mode, with participants encouraged to engage in rapid peer exchanges. Each attendee was asked to pair up with someone new to answer the question:

> *"What's one thing DPI or AI could fix in agriculture—if we got it right?"*

This participatory moment symbolized the AGX commitment to community-driven problem-solving.

The session transitioned seamlessly into "Voices from the Field," facilitated by Sheena Raikundalia, Chief Growth Officer at *Kuza Biashara*. She introduced the concept of "people + platform," highlighting Kuza's model of using youth-led agri-entrepreneurship to scale digital access to over 1.2 million farmers across six countries. Sheena set the stage for a series of farmer-centered discussions that grounded the event in lived experience, beginning with Jeremiah Letting, a coffee farmer and cooperative leader from Nandi County, Kenya.

Voices from the Field

Jeremiah Letting (Nandi Coffee Co-op), Vincent Kiplimo (Toroton Farmers Co-op), and Peter Kibet (Toroton Farmers Co-op) Facilitated by Sheena Raikundalia (Kuza One)

Day 1: 9:30 AM – 9:50 AM

The "Voices from the Field" session was a powerful highlight of the AGX AI Unconference, spotlighting firsthand experiences from farmers, agronomists, and technologists tackling agricultural challenges on the ground. Facilitated by Sheena Raikundalia, Chief Growth Officer at Kuza Biashara, the session illustrated how local knowledge, digital tools, and community-led models can drive meaningful change in agricultural systems.

Speaker 1: Jeremiah Letting – Coffee Farmer & Cooperative Leader

Jeremiah Letting, a smallholder coffee farmer and chair of the Meditei Set Kabur Cooperative Society in Nandi County, shared an in-depth overview of the annual coffee production cycle, including detailed agronomic practices, fertilizer timelines, and climate dependencies. He described the severe disruptions caused by **climate change**, such as shifting harvest seasons, increased pest infestations, and erratic rainfall.

He also highlighted systemic challenges, including:

- Lack of access to training and extension services
- Low market access and high input costs
- Gender inequity in farming rewards
- Limited youth participation due to stigma around agriculture
- Poor infrastructure and middlemen pressures

Despite these hurdles, Jeremiah expressed hope in collaboration with experts to co-develop solutions, increase productivity, reduce costs, and improve livelihoods through stronger partnerships and innovation.

Speaker 2: Vincent Kip Limo – Agronomist and Cooperative Manager

Vincent reinforced many of Jeremiah's concerns, especially around:

- Land degradation and climate extremes (e.g. landslides)
- Poor road networks limiting transport and market access
- Inadequate supply of certified seeds
- Insufficient one-on-one extension services

He stressed the urgent need for better seed systems, access to knowledge, and institutional coordination to prevent declining yields and quality. He urged government actors and cooperatives like KPCU to invest in localized extension and quality assurance systems to support smallholders.

Speaker 3: Peter Kibet – Technologist & AI Advocate

Peter brought a digital lens to the conversation, sharing his work at the Toroton Farmers Cooperative Society, where he helps farmers digitize operations and access emerging

AI-powered tools. He outlined the potential of DPI and AI to transform agricultural systems through:

- Farmer registration and digital ID systems
- Soil health mapping and pest prediction
- Real-time price transparency and traceability
- Smart advisory and AI-based decision-making
- Open platforms connecting farmers to finance, markets, and services

He also candidly noted barriers such as low digital reach, limited connectivity, trust issues, and data privacy concerns, calling for targeted action to ensure digital systems are contextualized, accessible, and inclusive.

Session Takeaway

This session grounded the unconference in reality, bridging abstract technological aspirations with the lived experiences of farmers and frontline actors. The candid testimonies demonstrated that while AI and DPI offer immense promise, their success depends on trusted human networks, localized deployment, and deep listening to community needs.

The speakers collectively called for greater investment in:

- Extension services
- Input systems and seed access
- Climate adaptation strategies
- Digital capacity building
- Stronger multi-stakeholder partnerships

This was a clear reminder that the path to transformative agriculture starts from the field—with farmers at the center.

Interactions Between AI and Digital Public Infrastructure: Concepts, Benefits, and Challenges

David Eaves (University College London) – via pre-recorded interview Moderated by Jawoo Koo (IFPRI)

Day 1: 10:20 AM – 10:35 AM

This keynote-style conversation between Prof. David Eaves and Jawoo Koo explored the intersection of Artificial Intelligence (AI) and Digital Public Infrastructure (DPI), emphasizing how the two can work together to create meaningful, inclusive, and scalable public value—particularly in agriculture and food systems.

Key Themes & Takeaways:

- Clarifying AI vs. DPI:
    - AI is a general-purpose technology, like electricity, applicable across sectors.
    - DPI consists of more specific, foundational systems (e.g. ID, payments, registries) that enable government services and data flow.
    - Understanding them as distinct but complementary is essential for effective policymaking and design.
- AI Enhancing DPI – and *Vice Versa*:
    - David shared India's Bhashini initiative as a powerful example: AI-driven translation systems enabling citizens to access government services in local dialects. This strengthens DPI by expanding accessibility.
    - Conversely, DPI (e.g. unique identifiers, open data systems) is essential to building better, more inclusive AI systems, enabling scale, quality control, and equity testing.
- AI is Only as Good as the Data Behind It:
    - Without high-quality, accessible, inclusive data, AI risks reinforcing biases.
    - DPI can help address this by standardizing data structures and access across public systems.

- Warning Against Tech Hype:
    - Governments may be drawn to the promise of "AI" without having the foundations (like robust data or DPI) in place—akin to buying a Ferrari before building roads.
    - The importance of grounding all innovation in real, citizen-centered use cases was emphasized as essential for trust and impact.
- Biggest Risks:
    - Bias and exclusion due to poor or incomplete data.
    - Wasted resources on AI initiatives that don't deliver tangible value.
      Loss of social license if citizens don't see direct benefits.
- Magic Wand Wish – What's Most Needed:
    - David advocated for something deceptively "boring" but deeply impactful: harmonized farmer registries across governments.
    - Standardized, interoperable data systems would enable regional learning, inclusive design, and better AI-informed policymaking—forming the "basic building blocks" of digital transformation.

Final Note:

Jawoo emphasized how this conversation lays the groundwork for AGX's broader agenda—to design smarter, fairer, and more inclusive agricultural ecosystems using AI and DPI. Participants were encouraged to carry this lens into working groups, Innovation Jams, and networking over the next two days.

Talk to Your Neighbor

Facilitated by Sheena Raikundalia (Kuza One)

Day 1: 10:35 AM – 10:45 AM

Question 1: What resonated most with you from the stories you just heard? Did it challenge or confirm anything you assumed about the realities on the ground?

**Submission from Mentimeter questionnaire*

Incentives for farmers to share data. Currently there is no clear value proposition or incentive for farmers to contribute their data.

It challenged what Jacqueline assumed.
Kibron confirms that farmers are aware of the challenges they face but the big question is why are farmers not saving themselves
Minnie: Build for and with the farmer
Yes. Farmers first
DPI is lacking for farmers to fully participate, even in Kenya.
Digital literacy is a real issue
Farmers are not working together to solve their challenges
Boring interventions like data standards are still very important and more investment is needed.
That there is great need to create digital literacy amongst farmers

Question 2: If you were to design one small intervention to address one of these inefficiencies, what would it be—and who would you need at the table?

There are policies, but no implementation. The policymakers.
Central Clearing house to inform farmers on which AI based services are most appropriate to generate income, sustainability for farmers.
Cooperatives and their farmers
A standardized farmer registry that can work across platforms.
Cooperatives and their farmers
Free WiFi for farmers! We need MNOs like Safaricom at the table.
A capacity building program for farmers

Question 3: Where do you see the greatest opportunity—or risk—in the intersection of AI and digital public infrastructure in your context?

DPI needs government and private sector integration.
AI forms the foundation for DPI without re-inventing the wheel for specification to various objectives
Systems are not standardized to support interoperability.
Aggregation of data from publicly and privately available sources and making them available to key decision makers
Building trust on the values of digitalized farming through assurance of data protection. Farmers need to join the AI circuits through correct advisory platforms
Faster GTM for research bred innovations
Data sharing, data privacy, data security, trust, and bias/misinformation
Too much focus on technology
Reinforcement learning of AI using real world infra through DPI
Ai referencing suboptimal Infor since efficient information is not public
Prior informed consent -
Possibility of integrating existing data sets into DPI and enabling access by all interested parties
AI & DPI can be used to quickly deploy & scale decision-support tools to improve agricultural outcomes for smallholder farmers
Opportunity - create incentives that overcome negative externalities such as taxation, effort of capturing data etc.
Opportunity - Transparency of systems
We had a conversation on pricing points aggregation and how easily it is accessible to farmers and major stakeholders in the Agricultural sector.
Opportunity: ability for there to be more precision in agriculture
AI being seen as the magic wand that can solve everything while people don't understand how it works.

AI is being built on a poor or non existent infrastructure in African
Risk - overdependance on AI even when people don't understand it Opportunity - the potential of efficiency and effectiveness in a short time while leveraging AI
Failure of farmers to understand value
How to share data in a central place and freely make it abailable to all
This may create Incentives for data sharing from both a private and public sector perspective.
The greatest risk is trust at the last mile!
Providing accurate weather prediction
Developing solutions that are tailored to the individual farmers needs
Opportunity is that DPI gives AI more optimal references and knowledge
The biggest opportunity lies in setting up a National DPI that provides basic uniform info that can feed into different AIs that are out there supporting our farmers
A great opportunity in information sharing
risk: consolidation of power imbalances in supply chains (mismatch between who owns data and who provided data, e.g. farmers)
Including farmer feedback and insights into breeding decisions. Also feeding back learnings and results to the farmers so they are more included.
Risk lies in not having sufficient data collection systems at farmer level
Reliability of data. Is the information trusted to make decision?
1) models that are not benchmarked, both from an accuracy and a usability/user experience perspective, eroding public trust in digital tools
Does the system allow farmers use it with their own languages?
It's a great opportunity once trained with correct data
Risk: Illiteracy and farmers above 65yrs old, culture to issues needs more awareness works on elders

Opportunity: Personalized services for farmers Risk: Abuse and oppression to farmers (taxes)
This brings about centralization of data. Hence it becomes like a one stop shop for anything with regards to coffee for this case
Problem solving with the new technology would be easier
Bringing together complete, high-quality data with advanced AI powered analytics to create solutions that benefit the whole ecosystem
Encourage youths to engage in smart farming
Sensitization of farmers on the importance of AI and Data privacy
Greatest risk - who holds the rights to own/operate data public infrastructure and what measures have been put in place to ensure its safe, secure and will be used for good?
Ensuring AI models are relevant to our local context.
DPI creates an opportunity to standardize data processing Bias, particularly because a lot of the information utilized by AI is western-centric
Leverage any data collection efforts to go beyond mandatory, mundane exercise and help transform the data into insights that are of value to the producers (forecasting, benchmarking..)
Data Control and Security
Post harvest processing systems
More efficient and effective way of resolving issues
Extractive data practices... it is important even as we make sure e.g. opening up data for AI and DPI, that farmer communities and local ecosystems are main beneficiaries
AI is the basic foundation that is an opportunity on which DPI that is more specific can build on without reinventing the wheel
Opportunity: real-time information and access to marginalized communities Risk: data privacy; biased solutions
The greatest opportunity I see is crowd sourced data that could feed into the AI processes.
Traceability of farm to fork for various agricultural commodities to ensure healthy foods

Efficiency to reach out in few efforts, traceability, accountability
Risk...data protection Opportunity.. knowledge provisions
Data Control and Security
The opportunity is in leveraging on the tech-savviness of the youth to generate and apply digital/AI solutions that address critical challenges in the agriculture sector including connectivity to markets
Risk and Opportunity would be in terms of self-reliance. where one can fully rely on AI that he fails to remember or common practices. The opportunity will be a combination of both experience and AI
How to protect data and create trust from the farmers that whatever data is collected is not for the tax man
Misuse of personal data
Automation of farmer decision support systems to incorporate GeoAI based satellite imagery analysis
opportunity; better public service delivery, particularly in underserved regions e.g digital IDs, payment platforms, and civil registries for inclusive services. risk; forgone investment in infrastructure
Re-imagining DPI and AI and shifting the paradigm from focusing on the techy and fancier components to focusing on the basic building blocks like farmer registries, land zoning and soil mapping.
Digital financing for agripreneurs And ensuring that the capacity of the smallholder farmers and coops (end users) is built to the extent that they can optimally utilize the technology
Low digital literacy and connectivity challenges

Question 4: What questions should we be asking now to ensure these systems are inclusive, trustworthy, and built to last?

Diverse stakeholders are engaged in the requirements process to enhance inclusion, relevance and interoperability.
Are you involving stakeholders in co-creation?

What are the technical challenges - let’s discuss on ground issues beyond buzz words
How do we set up effective systems of data governance, and who are the best custodians for DPI / scaled AI solutions?
What constitutes DPIs. Is it data or some analytical services
Whether they have any business sense?
Who owns the data and what form of the data becomes information and transforms to as knowledge.
What should AI look like for each country and their needs. No cookie cut solutions. Personalised
Does everybody understand the opportunities AND limitations of AI?
If I were a farmer, I'd this something I could pay for?
We can use blockchain solutions and collaborate more on understanding the basics of the agricultural context in Kenya.
If they are sustainable in the long term
How do we build trust and use local Human Resources as a key enabler of building trust
How can farmers retain data ownership?
Are we building systems that can scale, adapt, and remain inclusive and trustworthy over time?
How can farmer data ownership be a value proposition to farmers?
Is data accessible all the time. Internet works hand in hand with powder. Is power available
Are the AI models we are using adapted for the Kenyan agriculture context? Do we have enabling policy environment to use AI in agriculture? Does the government understand AI, it's creation and usage
What do community-based ownership and business models look like?
Ensure inclusive governance and financial sustainability
We should be addressing the issues of data ownership and sharing. Will governments be the only mandated institutions to own and store data?

By using the local youths since they are known by the farmers
Are existing AI and DPI systems communicating together
The idea that farmers act on economic 'value propositions' alone has been debunked. Have you tried listening to what they actually want—and building value around that?
Is this for the benefit of the farmer?
Creation of a platform where we can have information shared
Who has access to the database and is consent blanket or selective
Is there enough technical expertise
Cost effectiveness. Who pays?
Participation from grassroot in local languages.
How can DPI and ai offer solution to challenges faced by farmers
Who is contributing to the systems and what benefits will they get in return? How do we ensure contributors and those with lived experiences are equal participants in the benefit-sharing
Awareness
How can we design AI-integrated digital public infrastructure to ensure equitable access and prevent exclusion of marginalized communities, particularly in terms of digital literacy, language diversity
What are our enablers, what should we prioritise
What governance frameworks and security protocols should be implemented to build trust in AI-driven DPI systems, ensuring data privacy, transparency, and resilience against cyberattacks over the long
Plugging legislative, regulatory and policy gaps in countries like Sierra Leone to optimize the benefits of DPI and AI. Bridge the agri-financing and tech-financing gaps
is it sustainable or tailor made based on needs

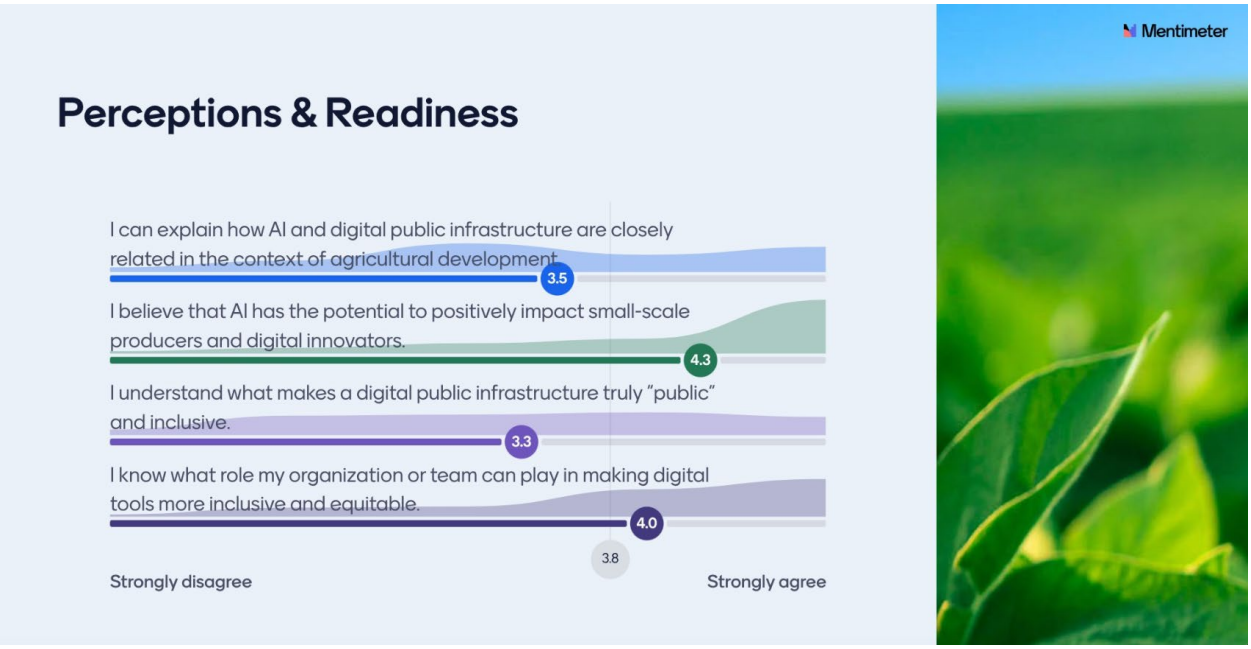
Pulse Check & Priorities

Facilitated by Sheena Raikundalia (Kuza One)

Day 1: 10:45 AM – 10:55 AM

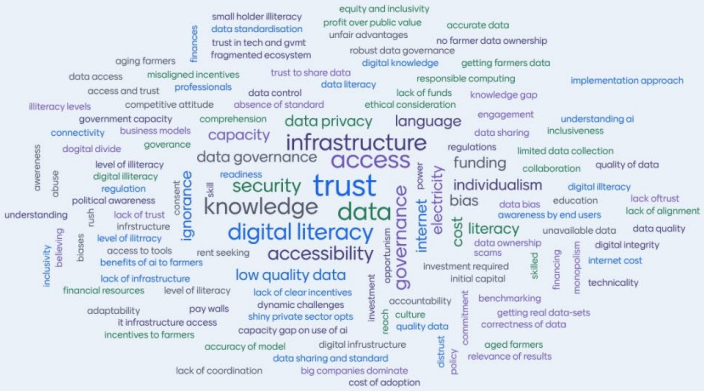
This interactive session offered participants a space to reflect on key learnings and surface collective priorities. Using live polling via Menti, the group identified what resonated most, where momentum is building, and which gaps remain. The session aimed to take a “pulse” of the community’s interests and energy, helping to shape the direction of future AGX efforts.

The results from the Mentimeter survey are listed below:



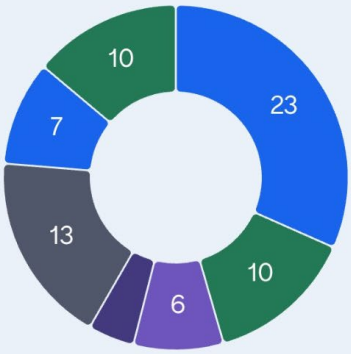
Mentimeter

What is the biggest barrier to responsible AI or DPI in your context?



Mentimeter

What area do you feel needs the most urgent collaboration?



23	Data (e.g., governance frameworks, data infrastructure, interoperability standards, accessibility and stewardship models)
10	AI (e.g., development of localized or contextual models, benchmarking practices, shared training datasets, ethical and regulatory standards)
6	Innovation (e.g., South-led innovation models, open-source toolkits, inclusive R&D ecosystems, community-driven design)
3	Investment (e.g., public-private financing models, alignment of funder strategies, regulatory incentives, long-term sustainability mechanisms)
13	Capacity (e.g., training for users/farmers and local institutions, AI literacy, digital skills development, institutional strengthening)
7	Policy (e.g., enabling policies for DPI/AI integration, cross-sector coordination mechanisms, digital rights, data sovereignty)
10	Partnerships & Coordination (e.g., multi-stakeholder collaboration, regional and global alignment, shared infrastructure platforms)

Question: What's one idea or partnership you're excited to explore after this convening?
Themes & Highlights from 80+ responses:

Partnerships & Collaboration

- Farmer cooperatives and farmer-led organizations (FPOs)
- Public-private partnerships (government, private sector, NGOs)

- Cross-country learning and benchmarking
- Interoperability and convergence of solutions

Data & Digital Infrastructure
- Centralized, community-owned data platforms
- Farmer registries and digital ID systems
- AI-ready datasets and standardized data formats
- Satellite and geospatial data integration (GeoAI)

AI & DPI Applications
- Localized AI models in agriculture
- Use of AI for traceability, market access, crop disease prediction
- Democratizing access to decision-support tools
- Aligning DPI systems with EUDR compliance, digital extension, and deforestation-free supply chains

Farmer-Centric Design
- User needs assessments
- Human-centered, inclusive design of AI tools
- Platforms in local languages
- Training, awareness, and digital literacy

Emerging Ideas
- Tools for real-time crop monitoring and pricing
- Ecosystems to connect grassroots actors to international markets
- Inclusive business models avoiding surveillance capitalism
- Coffee DPI platform and national databases

Question: What has shifted in your thinking today?
Themes & Reflections from ~50 responses:

Conceptual Shifts
- Clearer distinction between AI and DPI
- Recognition that DPI enables AI, not just benefits from it
- Importance of basic infrastructure and data standards

Mindset Changes
- The need to start with farmer challenges, not tech
- Value of simple, inclusive building blocks

- AI must be contextualized, localized, and demystified

Foundational Needs
- “Don’t skip steps” — solve basic problems first
- Farmer trust and digital literacy are prerequisites
- Too much paperwork and misaligned incentives hinder adoption

Human-Centered Insights
- Co-design and human advisory are key
- Farmer voices showed how ready and aware they are
- Elite farmers still face communication and access challenges

Implementation-Oriented Realizations
- Need to streamline data collection
- Groundwork for AI success lies in policy, infrastructure, and collaboration
- Digital tech can uplift smallholders—if used equitably and practically

Framing the Landscape for Smarter, More Efficient Agriculture

Moderator: Sheena Raikundalia (Kuza One)

Panelists: Lucy Wambui Maina (Ritho Cooperative), Minnie Wanjiku (FarmBetter), Benjamin Kwasi Addom (The Commonwealth), George Watene (Global Coffee Platform), Florence Kinyua (GIZ)

Day 1: 11:10 AM – 12:00 PM

This panel explored how digital public infrastructure (DPI) and artificial intelligence (AI) can meaningfully support smallholder farmers and cooperatives—without losing sight of the human systems and community trust at the heart of agriculture.

Key Themes & Takeaways:

DPI is foundational—but must be designed for farmers

- Panelists emphasized the need to “get the basics right”—from interoperable registries to payment systems to local access points.
- Digital tools should be farmer-facing and cooperative-enabled, not top-down impositions.
- Florence Kinyua (GIZ) highlighted the risk of tech being inaccessible if not designed with a user-centric lens.

Trust and inclusion are critical for adoption

- Lucy Wambui Maina (Ritho Coop) spoke passionately about how trust in leadership and transparency influences whether farmers adopt digital tools.
- Local champions—including cooperatives and field officers—are essential for socializing new systems and building confidence.

Aligning public and private incentives

- George Watene (Global Coffee Platform) stressed that digital transformation must benefit everyone across the value chain, including buyers, exporters, and the farmers themselves.
- Minnie Wanjiku (FarmBetter) noted the need for inclusive business models that empower, rather than extract from, farmers.

Regional and global collaboration is key

- Benjamin Addom (The Commonwealth) reminded the group that no single country or actor can do this alone—standards, data governance, and benchmarking must happen at the regional level.
- There was shared excitement about the potential for shared learning across Africa, Asia, and the Caribbean.

Notable Quotes:

> *“Trust is more important than tech.” – Lucy Wambui Maina*
>
> *“If we don’t build DPI with and for the farmer, we’ll lose them before we start.” – Florence Kinyua*
>
> *“Technology must be anchored in real farmer needs—not just buzzwords.” – Minnie Wanjiku*

Working Group A: AI and DPI for Agricultural Advisory: What Will It Take?

Minnie Wanjiku (FarmBetter), Kibrom Sibhatu (icipe)

Day 1: 1:00 PM – 2:15 PM

Session Summary:

This breakout session explored the opportunities and limitations of applying APIs (Application Programming Interfaces) and DPI (Digital Public Infrastructure) to improve agricultural advisory services in Sub-Saharan Africa. Drawing from their work on the Agripass project and broader regional experiences, Kibrom and Minnie guided a participatory discussion on the current gaps in extension systems, the potential of AI and digital tools to close these gaps, and what's needed to make digital advisory services scalable, inclusive, and impactful.

Key Takeaways:

- Critical Gaps in Traditional Extension:
  - Ideal extension agent-to-farmer ratio is 1:400, but in practice it's often 1:3,000–10,000.
  - Most public extension services are top-down, under-resourced, and poorly contextualized.
  - There is a significant gender imbalance—80% of agricultural labor is done by women, but only 20% of extension agents are female.
- Barriers to Digitalization:
  - Smartphone ownership and internet access are still major hurdles, especially in rural areas.
  - Affordability of devices and data remains a huge barrier.
  - The digital divide is layered—by gender, geography, wealth, and region.
- Promise of AI & DPI:
  - AI can personalize, localize, and rapidly scale advisory services.
  - Digital platforms can bundle services (e.g., insurance, pest alerts, market access) in one interface.

    - AI offers opportunities in translation, multimodal delivery (text/audio/video), and predictive modeling.
- Cautions Around AI:
    - Risk of misinformation or “hallucinations” if models are not locally grounded.
    - Need for transparency, validation, and farmer trust.
    - Localization must include not just language but tools, relevance, and governance structures.

Key Recommendations:

1. Invest in Hybrid Advisory Models:
    - Combine human extension agents with digital tools for better coverage and contextual nuance.
2. Prioritize Affordability and Infrastructure:
    - Reduce costs of smartphones and data.
    - Invest in rural connectivity and basic infrastructure to enable DPI.
3. Ensure Inclusive Design:
    - Build for women and marginalized groups—don’t replicate analog exclusion in digital systems.
    - Actively involve farmers in system design and feedback loops.
4. Strengthen Governance & Accountability:
    - DPI must be governed by transparent policies to ensure data privacy, responsible AI, and equitable access.
    - Address policy barriers that limit extension service delivery (e.g., fragmented mandates, outdated funding models).
5. Support Interoperable Platforms:
    - Promote shared infrastructure (DPI) and open APIs that enable innovation across services and organizations.

Action Items & Next Steps:

- Test and Expand Hybrid Models:
    - Continue gathering evidence on the effectiveness of hybrid (agent + digital) approaches like those piloted in Agripass.
- Advance Localization of AI Tools:
    - Build AI systems trained on local languages, agronomic realities, and community needs.
- Pilot Affordable Access Solutions:

    - Explore subsidized data bundles, device-sharing models, and offline functionality to reach underserved users.
- Map and Coordinate Across DPI Actors:
    - Convene stakeholders building digital advisory systems to align on standards, open data, and collective infrastructure.
- Integrate Farmer Feedback Loops:
    - Incorporate mechanisms for farmers to evaluate, question, and contribute to digital advisory content.

Working Group B: Driving Sustained Action and Impact to Enhance GenAI for Ag Benchmarking in Sub-Saharan African and Indian Contexts

Michael Minkoff & Siva Balasubramanian (Athena Infonomics)

Day 1: 1:00 PM – 2:15 PM

Session Summary:

This breakout session, led by Mike Minkoff from Athena Infonomics, explored how to strengthen benchmarking for AI-driven agricultural advisory tools in Sub-Saharan Africa and India. Building on a "living" benchmarking discussion paper and momentum from the May 20 Gates + Bayer workshop, participants reviewed the promise of AI-powered advisors and the challenges of evaluating them in diverse, smallholder contexts.

After a brief framing on active benchmarking efforts (e.g., CropWizard, Farmer.Chat, Dhenu, AgREASON, AgXQA, AIEP Golden Q&As) and the core dimensions of effective benchmarking such as accuracy, local relevance, trust, and safety, participants moved into breakout groups. These smaller discussions tackled targeted prompts—such as confidence in AI recommendations, ensuring local effectiveness, and sustainable benchmarking approaches—allowing for richer exchanges, region-specific insights, and cross-stakeholder learning.

The groups reconvened to share highlights, reinforcing common gaps like limited local validation, fragmented pilots, and the absence of coordinated infrastructure, while converging on the need for shared standards, open datasets, and collaborative mechanisms to scale effective benchmarking.

Key Takeaways:

- **Benchmarking Context and Gaps**
    - AI agricultural advisors hold significant potential, but farmers, donors, and governments lack a standard way to assess trustworthiness or effectiveness.
    - Many tools are developed for U.S. or global markets and do not generalize well to smallholder farming systems in Africa and South Asia.
    - Limited testing with farmers and agronomists in local contexts reduces the practical value of existing benchmarks.

Essential Benchmarking Dimensions

- **Accuracy:** Advice must be agronomically sound and relevant to local conditions.
- **Local Relevance:** Benchmarks should reflect crops, climate, and languages in target regions.
- **Trust:** Farmers must be able to understand, believe, and act on the advice given.
- **Safety:** Systems should detect and flag hallucinations, harmful advice, and bias.

Structural Challenges

- No formal convening body exists to align tools, datasets, and funding.
- One-off pilots lack pathways to become scalable, shared infrastructure.
- There is no coordinated roadmap linking benchmarking work to ongoing tool development and deployment.

Momentum and Opportunities

- The May 20 workshop underscored the need for multimodal, multilingual benchmarking and for a formal subcommittee to guide alignment.
- A near-term opportunity exists to launch a multi-country benchmarking pilot, publish shared rubrics, and/or create a public evaluation registry.

Key Recommendations

1. **Maintain Iterative Benchmark Development:** Continue updating benchmarks based on field feedback, new research, and evolving AI capabilities.

2. **Broaden Contextual Relevance:** Include region-specific crops and agronomic practices, languages, and cropping systems in benchmark scenarios.

3. **Bridge Technical and Practitioner Communities:** Foster spaces where data scientists, agronomists, and extension agents co-develop metrics and test protocols.

4. **Prioritize Real-World Testing:** Test tools in live advisory settings, not just controlled environments, and integrate farmer feedback systematically.

5. **Create Accessible Communication Materials:** Develop plain-language guides and visuals so that diverse stakeholders—farmers, funders, policymakers—can engage with benchmark findings (e.g., simple scorecards or rating systems),

Share and Review Current Paper: Distribute the existing benchmarking discussion paper to participants for feedback, ensuring input from both technical and practitioner perspectives.

Action Items and Next Steps:

- **Document Session Inputs:** Consolidate ideas and challenges raised during the session into the next paper revision.

- **Plan a Targeted Follow-Up:** Organize a workshop or working group session to refine metrics, prioritize test cases, and align on methods -- e.g., via the Benchmarking Working Group.

- **Broaden Stakeholder Involvement:** Engage additional networks—especially in underrepresented regions—to participate in validation pilots, again leveraging (and expanding) the Benchmarking Working Group

- **Establish Update Cycles:** Commit to regular public updates (e.g., quarterly) to share benchmark progress, new findings, and lessons learned.

Working Group C: Co-Creating Equitable, Localized, Low-Cost AI Solutions for Small-Scale Producers

Shuko Musemangezhi & Malcolm Durosaye (Dev-Afrique Development Advisors)

Day 1: 1:00 PM – 2:15 PM

Session Summary: This breakout session convened 16 participants and was organized into three subcommittees:

1. Technology and Data
2. Policy and Partnership
3. Extension and Implementation

A brief framing presentation was made before the subcommittee breakouts. Due to the profile and expertise of the participants, only the Technology and Data and Extension and Implementation subcommittees were actively engaged and discussed at length, with policy being slightly addressed during the session. The discussion focused on practical pathways for developing and deploying localized large language models (Agri-LLMs) that are accessible, inclusive, and effective for smallholder farmers.

Key Takeaways:

1. **Participatory and Localized Approaches:** Participants emphasized the importance of grounding Agri-LLM development in community realities:
   - Engage community leaders and champion farmers as early adopters and trust-builders.
   - Utilize cooperative societies and extension networks for grassroots outreach.
   - Prioritize low-literacy-friendly interfaces, including IVR (interactive voice response) and image-based designs.
   - Design messaging that is natural, brief, and relatable.
   - Embrace user-centered design to ensure tools reflect real farmer needs.

2. **Bridging the Tech–Agriculture Divide:** A key insight was the disconnect between technology developers and agricultural practitioners:
    - Foster interdisciplinary collaboration, particularly between agronomists, software developers, and behavioral experts.
    - Take inspiration from Kenya's county-level agricultural training centers as platforms for integrated development.
    - Involve linguists and communicators to translate complex recommendations into local languages and farmer-friendly formats.

3. **Sustainable Business Models:** The discussion highlighted the need for viable scale-up pathways:
    - Start with NGO or donor-backed pilots to demonstrate proof of concept.
    - Transition to business-to-government (B2G) or business-to-business (B2B) models for long-term financial sustainability.
    - Implementing USSD-based delivery can be cost-intensive, highlighting the need for government partnership to extend reach in rural, low-connectivity areas.

Key Recommendations:

1. **Build Inclusive AI Systems:** Standardize data pipelines and ensure end-user participation in system design.
2. **Strengthen Digital Public Infrastructure (DPI):** Promote real-time, interoperable platforms that are open and accessible.
3. **Adopt Participatory Design Approaches:** Include farmers, linguists, and human-centered designers from inception.
4. **Foster Cross-Sector Collaboration:** Establish working groups across government, civil society, private sector, and trade associations to align implementation efforts.

Cross-Pollination Synthesis & Action Session

Facilitated by Jawoo Koo (IFPRI)

Day 1: 2:15 PM – 3:25 PM

This session invited attendees to engage in small-group discussions around two critical themes shaping the future of digital public infrastructure (DPI) and artificial intelligence (AI) in agriculture: **Inclusivity** and **Governance & Data Ownership**. Using a set of guiding questions, participants reflected on current gaps, surfaced risks and opportunities, and proposed practical steps to ensure that digital systems are equitable, trusted, and grounded in local realities. While the volume of feedback was limited, key themes emerged across table discussions that offer important direction for future collaboration and design.

Guiding Questions:

Inclusivity in DPI & AI

1. Who is being left out of DPI & AI efforts right now?
2. What are the key risks of exclusion?
3. What are 1–2 practical ways to build inclusion into DPI & AI design and deployment?

Governance & Data Ownership

1. Who should control data in DPI & AI systems—and why?
2. What governance models or principles can protect public interests?
3. What are 1–2 next steps for advancing good governance?

Synthesis of Participant Insights

1. Who is Being Left Out

- Smallholder and traditional farmers, particularly in the Global South
- Women, youth, older farmers, and marginalized communities
- Cooperative societies, regional/local governments, and policy makers
- Private sector actors who are traditionally excluded from public system design

2. Risks of Exclusion

- Deepening inequality and digital divides
- Erosion of trust due to data misuse, lack of transparency, or perceived bias
- Loss of local knowledge and language/cultural context
- Data privacy breaches and lack of user control
- Market lock-in and dominance by a few private providers

3. Practical Ways to Foster Inclusion

- Human-centered design approaches
- Inclusion of diverse stakeholders through PPPs and citizen science
- Infrastructure that enhances accessibility (e.g., USSD platforms, translation to local languages)
- Baseline data to understand user needs and status
- Awareness-building and digital literacy campaigns

4. Who Should Control Data—and Why

- A multi-stakeholder consortium, potentially led by government, to ensure trust and inclusivity
- National governance varies, but strategic alignment is essential for ownership and sustainability

5. Principles for Good Governance

- Use of established frameworks like FAIR (Findable, Accessible, Interoperable, Reusable) and CARE (Collective Benefit, Authority to Control, Responsibility, Ethics)
- Consent, human-in-the-loop models, and government regulation
- Design that centers on public interest, not just efficiency or scalability

6. Next Steps for Governance

- Awareness and advocacy campaigns to improve digital trust
- Stakeholder convenings to align on priorities and responsibilities
- Creation of national or regional platforms to coordinate data governance
- Gathering baseline data to inform policies and governance models

The Commons Debate: Digital Infrastructure and the Public Interest

Facilitators: Brian King (Alliance Bioversity & CIAT), George Watene & Sandra Ndichu (Global Coffee Platform)

Day 1: 3:40 PM – 4:40 PM

This highly interactive session explored divergent and converging views on the roles of government and the private sector in building and managing digital public infrastructure (DPI) for agriculture. Participants physically positioned themselves along a spectrum in response to provocative prompts, sparking lively debate and mutual reflection on three key themes:

- **Public vs. Private Sector Leadership**: Some advocated for strong government leadership to ensure inclusivity, regulation, and provision of public goods, while others emphasized the efficiency, innovation, and global alignment offered by the private sector. Many landed in the middle, calling for a collaborative model where governments set standards and private actors implement under those frameworks.

- **Data Transparency vs. Privacy**: Attendees wrestled with the tension between full data traceability (essential for market access and accountability) and protecting individual privacy, particularly for farmers. The group largely converged on the need for transparency, balanced with robust data governance mechanisms led by the public sector.

- **Financing DPI**: While some argued that sector actors should bear the costs of compliance and infrastructure, others pointed to the need for subsidies or co-investment, especially to support smallholders. The consensus leaned toward a "matching" model: shared responsibility between public and private actors to ensure both equity and sustainability.

The session concluded with collaboratively generated convergence statements, reinforcing the value of partnership and the importance of balancing innovation, regulation, and inclusivity in advancing agricultural DPI.

Fireside Chat: “How I Changed My Mind”

Facilitated by Sheena Raikundalia (Kuza One)

Day 2: 9:30 AM – 9:50 AM

This reflective session invited three volunteers to share moments from Day 1 where their thinking shifted, whether prompted by stories, data, questions, or debates. Their candid sharing highlighted the power of remaining open to new ideas and surfaced key insights to guide ongoing conversations and solution-building.

Volunteers:

- **Jonah Specker**, FAO Forestry Department, working on the Forest Monitoring and Data Platform, developing digital public infrastructure solutions.
- **Raymond Cutter**, Produce Monitoring Board, Sierra Leone, regulator for commodities.
- **Suzanne Jahir**, Head of Innovation at Hello Tractor.

Key Takeaways:

- **Shifting Perspectives on Connectivity and Access:** Jonah Specker shared how he initially doubted the feasibility of universal mobile data access for farmers but reconsidered after realizing telecom providers like Safaricom already offer unlimited app-specific bundles (e.g., WhatsApp). This sparked ideas for public-private partnerships to provide affordable or free data access for agricultural advisory apps.

- **Appreciating the Foundational Building Blocks of DPI and AI:** Raymond Cutter expressed initial skepticism about Sierra Leone’s readiness for DPI and AI, but found encouragement in recognizing the importance of foundational data like farmer registries, land zoning, and crop mapping. He also reflected on navigating tensions between compliance (e.g., EU Deforestation Regulation) and national priorities such as food security.

- **The Value of Asking Better Questions and Agency:** Suzanne Jahir emphasized a shift toward asking better, more critical questions about data access, ownership, and the roles of government versus startups. She highlighted the importance of incorporating rural communities as co-creators of solutions through citizen science and participatory design.

- **Reframing DPI as a Paradigm Shift, Not Just Technology.** Participants agreed that DPI involves unbundling monolithic systems into modular, interoperable building blocks with open APIs. This approach fosters innovation and breaks down silos, allowing for more flexible, scalable solutions.

Thank you to our volunteers for creating a space grounded in reflection, honesty, and growth. Their insights reflected a shared commitment for idea-sharing, mutual learning, and collective evolution, with participants pushing each other to think critically and creatively.

If You Had a Magic Wand…

Facilitated by Sheena Raikundalia (Kuza One)

Day 2: 9:50 AM – 11:00 AM

This highly interactive session invited participants to imagine bold, transformative solutions to persistent challenges in **advisory services, data governance, and financial services**. Using the prompt of a "magic wand," table groups co-created ambitious ideas unconstrained by current limitations but grounded in real-world needs. The session included a live Mentimeter poll where each group shared:

- The **challenge** they focused on
- Their **bold, visionary idea**
- The **target audience or beneficiaries**

The results from the Mentimeter survey are listed below:

National “infrastructure” or DPI for Ag data to enable exchange between existing individual data systems and reduce duplication.

Making data ownership just: farmers should own their data no matter who collected it a they are the source of data.
High cost of capital hindering farmers from financing their farming activities. Through Public-Private Partnerships we believe there can be a negotiated rate for ease of access.
Chal.: Data ownership Sol.: data owned by farmers and collected by them in standardised format. Farmers are sensitized about value of data. Data governed through centralized data repository with farm
Universally recognized way (ecosystem) of both centralized and decentralized hosting of data, which retains ownership or (co-owner ship) of data and its consent-based sharing.
Data ownership
eProd integrated its ERP with ITC-DFTG to ensure that even the smallest coffee coops and estates to share information with EU Operators online to ensjure EUDR compliance
Challenge: High privacy database, hosted by gov. Magic wand: Gov institution willing to host database without knowing content. Farmers trust it.
Data governance
Co-ownership between data collector and farmer. A marketplace where data buyers bid on data. Owners release data if bid agreed
Financial services The bold idea: Everyone in the value chain really understands money to know what investments are sound and how to make our products competitive in the global market.

Farmers don't agree to share their details
Hyperlocal data collection and knowledge exchange Bundling of services (finance, market, agronomy, local knowledge network, etc) VBAs and lead farmers empowered Financial Planner
Challenge: Data Ownership Bold Idea: Co- ownership between Farmers & Data Collector Establish a centralized data repository with consent. Who is it for: Farmers and Government for planning purposes
National “infrastructure” or DPI for Ag data to enable exchange between existing individual data systems and reduce duplication.

Ideas centered around transforming agricultural data systems and financial inclusion, with many groups envisioning ways to ensure farmers retain ownership of their data, regardless of who collects it. Suggestions included the development of a national data “infrastructure” to reduce duplication, standardized data formats, co-ownership models, and centralized or hybrid repositories with consent-based sharing. Others proposed farmer-focused financial innovations, such as public-private partnerships to lower capital costs, bundling services for hyperlocal delivery, and tools to deepen value chain actors’ financial literacy.

This session exemplified the event’s core spirit: sparking creative, grounded, and scalable solutions while encouraging team formation. Many of the ideas developed here shaped team pitches during the Thursday Ideathon Showcase and may form the basis for future investment or collaboration.

Key Takeaways:

- **Bold Thinking Can Unblock Systemic Challenges:** Participants embraced the invitation to think big, proposing solutions that tackled root causes—such as farmer mistrust, limited access to credit, and fractured advisory systems—rather

than just symptoms.

- **Grounded Innovation is Most Powerful:** While the session encouraged unconstrained thinking, the most compelling ideas were those firmly rooted in participants' lived experience and deep knowledge of agricultural systems and smallholder needs.

- **Cross-sector Collaboration is Essential:** Many proposals emphasized the need for integrated solutions—combining advisory services with financial access, or coupling data systems with governance reform—highlighting the importance of breaking down silos between service areas and sectors.

- **Trust, Transparency, and Inclusion are Non-Negotiable:** Across all three topic areas, teams identified that lasting impact depends on building trust with farmers, designing with equity in mind, and ensuring solutions are not only tech-enabled but community-driven.

- **Momentum is Building Around AI and DPI:** Several solutions explored the use of AI and DPI to create scalable, accessible systems—such as virtual agents, inclusive credit scoring models, or interoperable farmer registries—underscoring the growing relevance of digital tools when ethically and responsibly applied.

Working Group A: Right-Sized Corpus Building: Enabling Stronger AI Advisory Services and Solutions in Sub-Saharan Africa and India

Michael Minkoff & Siva Balasubramanian (Athena Infonomics)

Day 2: 11:15 AM – 12:15 PM

Session Summary:

This session, facilitated by Michael Minkoff and Siva Balasubramanian from Athena Infonomics, focused on “right-sizing” corpus building for AI-powered agricultural advisory services, with an emphasis on the Kenyan context while drawing in perspectives from other countries. Building on a pre-circulated discussion paper, the framing posed two guiding questions: (1) What would it take for an AI agricultural advisor to understand a farmer’s context as well as a local expert? and (2) What if every advisory service, public or private, could both contribute to and draw from a shared corpus?

The discussion began with a quick participant poll to gauge experience with AI advisory tools, challenges in accessing locally relevant agricultural data, and involvement in building or federating data corpora. Breakout conversations explored what participants would look for—or be concerned about—if an AI chatbot were advising farmers in their countries today.

Key topics included defining corpus quality and relevance, aligning public and private sector data contributions, and tackling barriers to sharing such as data privacy, ownership, and competitive interests. Participants emphasized the need for governance models, sustainable incentives, and interoperability to ensure that shared corpora can drive accurate, context-aware, and trusted AI advisory services.

Key Takeaways:

- **Shared Corpus Potential:** A federated, shared corpus could enable AI tools to deliver more accurate, context-specific advice across languages, crops, and agroecological zones.
- **Quality and Relevance Standards:** High-quality corpora must combine trusted local knowledge with structured datasets to reflect real farming conditions.
- **Data Access Challenges:** Many stakeholders face barriers to obtaining locally relevant agricultural data due to fragmented systems, unclear ownership, and resource constraints.
- **Incentives for Contribution:** Both public and private actors need clear benefits and protections to contribute data, including commercial incentives and fair governance frameworks.
- **Interoperability and Governance:** Corpus efforts should adopt open, interoperable standards and clear governance to manage quality control, access rights, and sustainability.

- **Local Expertise Integration:** Corpus development must actively involve farmers, extension agents, and local researchers to ensure contextual accuracy.

Action Items and Next Steps:

- **Map Existing Corpora:** Identify current agricultural datasets and corpora in Kenya and other relevant regions, noting gaps, overlaps, and access conditions.
- **Develop Quality Criteria:** Establish shared standards for corpus accuracy, representativeness, and relevance to local contexts.
- **Pilot Federated Corpus Model:** Test a small-scale, multi-partner corpus initiative, incorporating both public and private sector data sources.
- **Define Governance Framework:** Draft roles, responsibilities, and decision-making processes for corpus contribution, curation, and use.
- **Address Data-Sharing Barriers:** Propose mechanisms for protecting sensitive data while enabling meaningful sharing (e.g., licensing models, anonymization). **Engage Stakeholders Broadly:** Involve farmers, agronomists, policymakers, and tech developers early to ensure the corpus reflects diverse needs and constraints.

Working Group B: DPI Co-Design: Toward Deforestation-Free Kenyan Coffee

Brian King (Alliance Bioversity & CIAT), George Watene (Global Coffee Platform)

Day 2: 11:15 AM – 12:15 PM

Session Summary: This breakout session explored Kenya's ongoing initiative to co-design a digital public infrastructure (DPI) that enables traceability in the coffee value chain for compliance with the European Union Deforestation Regulation (EUDR). Speakers emphasized that while EUDR compliance presents new requirements for farmers and cooperatives, it also offers a critical opportunity to build infrastructure that can serve Kenyan farmers more broadly. The envisioned system would provide not just

traceability for export requirements, but also serve as a digital backbone for farmer services such as agronomic extension and financial inclusion.

Speakers and participants underscored the need for locally driven, farmer-centered approaches to digital innovation, avoiding top-down tools that impose new burdens without adding value for producers. The session focused on the importance of co-design, shared data governance, and interoperability, as well as how DPI can be designed for shared utility across sectors. Participants shared insights into barriers such as data silos, misaligned incentives, and lack of farmer trust, as well as levers for success, including government policy alignment and existing cooperative structures.

Key Takeaways:

- **Digital infrastructure for traceability can be a foundation for broader services.** EUDR compliance should be a catalyst for building farmer-centric tools that support livelihoods and resilience, not just regulatory reporting.

- **Co-design is critical.** Farmer organizations, government, private sector, and development actors must collaboratively shape the tools to ensure they are useful and sustainable.

- **Interoperability and open-source models are essential.** Fragmented data systems and platform silos undermine progress. A DPI approach can enable secure, consistent, and shareable data across actors.

- **Data governance must center farmers.** Ensuring that farmers retain control and benefit from their data was emphasized repeatedly as both an ethical and practical necessity.

- **Build on what's working.** Cooperative societies and county-level initiatives are already capturing useful data and could serve as starting points or integration partners.

Opportunities:

- **Leverage DPI for bundled services:** Once traceability data infrastructure is in place, it could support access to credit, insurance, and customized agronomic advice.

- **Catalyze cross-sector data sharing:** The system could support linkages to other DPI efforts in identity (e.g., farmer registries), payments, and climate services.

- **Position Kenya as a leader in ethical compliance tech:** By developing an open, farmer-centered model, Kenya could set a precedent for digital regulation tools globally.

- **Tap into EU and donor funding f**or EUDR compliance and climate-smart agriculture to support system design, testing, and scale-up.

Action Items:

- Map existing digital initiatives and data systems within the Kenyan coffee sector to identify alignment and integration points.

- Initiate a multi-stakeholder co-design process that includes farmer cooperatives, government agencies (e.g., Agriculture and Food Authority), NGOs, and exporters to define shared DPI principles.

- Engage Kenyan policymakers and trade associations to align DPI development with national and county-level agriculture digitization strategies.

- Develop a prototype traceability system that is modular and interoperable, with farmer dashboards and data privacy protections.

Working Group C: Working, Failing, Learning: What AI and DPI Teach Us in Practice

David Jon Bergvinson (DevGlobal)

Day 2: 11:15 AM – 12:15 PM

Session Summary: This session explored real-world successes and challenges in applying AI to agricultural advisory services. Participants shared practical examples

highlighting both promising outcomes and persistent obstacles, particularly around technology adoption, ethical considerations, and building trust with smallholder farmers. These insights underscored the importance of centering human experience, fostering inclusion, and innovating beyond technology alone to create sustainable, effective solutions for agriculture. The session laid a foundation for learning from past efforts to improve future AI-enabled advisory systems.

Key Discussion Areas:

- **Labor and Ethical Concerns in AI Training:** Data labeling and AI training labor often involve poor work conditions and low wages, highlighting the human intelligence behind "artificial" intelligence.

- **Farmer Trust and Understanding:** Smallholder farmers benefit most from practical, user-friendly advisory services rather than detailed technical AI explanations. Trust builds through transparency about data use and demonstrated benefits.

- **Role of Champions and Youth Engagement:** Trusted intermediaries such as extension agents and early adopters (often youth) play a critical role in AI adoption. Youth engagement is challenging and requires sustainable, profit-driven business models.

- **AI as a Productivity Tool:** AI should enhance human decision-making and productivity rather than replace human roles.

- **Comprehensive Value Chain Advisory:** Advisory services need to extend beyond farmers to processors, traders, and other value chain actors, respecting proprietary data (e.g., recipes).

- **Digital Literacy and Data Education:** Educating farmers on how their data is collected, used, and protected is essential for building trust and inclusion.

- **Diverse AI Models and Interfaces:** Beyond language models and chatbots, alternative AI interfaces (video, animations) and diverse AI models may better suit local contexts.

- **Sustainability and Hidden Costs:** AI infrastructure has significant energy and water costs that need acknowledgment and management.

- **Government Coordination and Innovation:** Cross-ministerial collaboration and communication reform are crucial to efficiently support AI-driven agriculture innovation.

Key Takeaways:

- Focus AI advisory on farmer usability and trust, not just technology.
- Prioritize ethical labor practices in AI data training.
- Leverage youth and extension agents as technology champions.
- Extend advisory services along the entire agricultural value chain.
- Implement ongoing digital literacy to empower farmers on data use.
- Explore and adopt a variety of AI models and engagement interfaces.
- Recognize sustainability impacts of AI infrastructure.
- Governments must innovate internal collaboration to support AI initiatives effectively.

Questions for Further Consideration:

- How can fair wages and labor protections be ensured for AI training workers globally?
- What business models best motivate youth participation in digital agriculture?
- How to balance proprietary data protection with the need for shared advisory content?
- What are effective, culturally appropriate digital literacy strategies for smallholder farmers?
- Which AI models beyond language-based systems hold the greatest promise for African agricultural contexts?
- How can governments practically implement cross-ministerial coordination to support digital agriculture?

Action Items and Next Steps:

- Develop farmer-centric AI advisory tools focusing on simplicity, trust, and clear value.
- Design and implement digital literacy programs tailored to farmers' needs around data privacy and AI use.

- Engage and support youth champions with viable business models to sustain participation.
- Explore alternative AI models and user interfaces suitable for local contexts.
- Advocate for ethical standards and fair labor conditions in AI data work.
- Facilitate government dialogues to build cross-ministerial collaboration mechanisms.
- Assess environmental impacts of AI infrastructure and develop sustainability plans.
- Plan for further sessions to deepen understanding, address lingering questions, and chart implementation strategies.

Innovation Jam: Mini-Grant Pitch Prep

Facilitator: Jawoo Koo (IFPRI)

Day 2: 1:15 PM – 3:00 PM

This session provided guidance on preparing for the Mini-Grant pitch challenge, covering goals, team formation, pitch requirements, format, judging criteria, and awards.

Goals

- Inspire creative, grounded solutions addressing real-world problems
- Encourage spontaneous team formation and cross-sector collaboration
- Surface bold ideas with potential for funding and follow-up opportunities

Team Formation

- Participants were directed to self-organize into teams of 3–6 people
- Teams could be formed around:
    - Shared ideas from event sessions
    - Responses to field-driven challenges
    - Spontaneous conversations
- Teams prompted to identify a clear challenge and propose a practical solution
- Bonus points to be awarded for grounding in or relating to DPI, AI, or agricultural systems

Pitch Requirements

- **The Problem:** What challenge are you addressing and who is affected?
- **The Solution:** What is your innovative idea and how does it work?
- **Proof or Potential:** Why is this idea promising? What evidence supports it (behavior change, pilots, traction)?
- **Next Steps:** How will the Mini-Grant help you advance this solution?

Format

- 3 minutes for each team to pitch
- Audience members vote after all pitches conclude

Judging Criteria (Scoring Rubric)

Judges evaluate each pitch based on:

- Relevance to real-world problems
- Innovation and creativity
- Feasibility and potential for behavior change
- Use of AI/DPI where applicable
- Clarity and effectiveness of storytelling

Awards and Recognition

- After all pitches, judges compiled their scores to select the top 3 pitches for audience voting.
- Crowd votes can help break ties and indicate momentum for further development
- 1–2 winning teams to receive Mini-Grant funding
- Finalists will receive written feedback and potential pathways for continued support and development

Timeline

- Teams were challenged to plan for approximately 3 months of implementation or piloting
- Progress or outputs to be reported by the end of the year

Participants were encouraged to apply their event learnings, collaborate broadly, and craft clear, impactful pitches demonstrating practical solutions to real-world challenges.

Pitch Session & Crowd Vote

Facilitator: Jawoo Koo (IFPRI)

Judges: Ram Dhulipala (CGIAR/ILRI), Tawanda Hove (Gates Foundation), Jerome Scheuren (GIZ), Sheena Raikundalia (Kuza One), David Bergvinson (DevGlobal)

Day 2: 4:40 PM – 4:45 PM

Inspire Challenge Pitches included:

1. **Ethiopia Buna Chain**: Buna chain-Ethiopia's coffee traceability platform
2. **PMB & AgriOS**: EUDR + ERP = DPI
3. **Coffee Biz**: Mshauri wa Kahawa
4. **Kahawa AI**: Co-Creating AI for the Coffee Ecosystem
5. **Women Power Team**: 100K for 100K
6. **AgriPath**: Bridging the gender gap in the digital advisory system
7. **aminika**: Information going down the value chain is biased
8. **Agri Field**: Increasing yields, Increasing income
9. **ASEL Agri - Youth Trace Force**: Youth Led Coffee Traceability for EUDR Compliance

1. Ethiopia Buna Chain

- **Summary:** The BunnaChain platform is a digital traceability tool developed to transform Ethiopia’s fragmented coffee value chain into a transparent, traceable, and sustainable system aligned with the European Union Deforestation Regulation (EUDR). By equipping smallholder farmers (SHFs), cooperatives, exporters, and regulators with inclusive, localized technology, the platform aims to ensure deforestation-free sourcing, promote digital empowerment, and improve market access for Ethiopia’s coffee sector.

- **Key Stats/Information:**
    - Ethiopia is home to **5.2+ million smallholder farmers** producing high-value Arabica coffee.

- The platform will pilot in three major coffee regions: **Oromia, Sidama, and Southwest Ethiopia.**
- BunnaChain includes **six key modules**:
  - Farm Mapping & Registry: GPS geolocation, farmer profiles, land rights mapping.
  - EUDR Education Hub: Voice-based, local-language training tools.
  - Data Capture & Standardization: Mobile input, AI cleansing, and validation.
  - Batch Tagging System: QR or RFID-enabled origin tracking.
  - Digital Advisory Assistant: AI chatbot for compliance, trade, and negotiation.
  - Export Compliance Dashboard: Visual traceability map and EUDR documentation tools.

- **Challenges:**
  - **Fragmented value chain** with informal actors and limited traceability.
  - **Weak data systems** and inconsistent data formats.
  - **Low digital literacy** among SHFs and cooperatives.
  - **Limited negotiation power** for producers in global trade.
  - **Compliance pressure** under new EU deforestation-free sourcing laws.

- **Opportunities & Action Items:**
  - Empower farmers through traceability and digital inclusion.
  - Build trust in Ethiopia's coffee through transparent, verified sourcing (Bunna Passport).
  - Improve market access by aligning with EUDR, creating pathways to EU buyers.
  - Increase farmer income via better pricing transparency and negotiation support.
  - Enable real-time monitoring of sustainability practices and coffee quality.

- **Next Steps:**
  - Finalize pilot in three key regions.
  - Expand training and onboarding for cooperatives.
  - Improve AI chatbot features based on pilot feedback.
  - Continue integrating feedback from exporters and EU buyers.

2. PMB & AgriOS: EUDR + ERP = DPI

- **Presented by:**
  - Raymond Katta, Executive Chairman, PMB
  - Bernard Wright, Sustainability Lead, Advance Insight

- **Summary:** The PMB & AgriOS initiative proposes an open-source, subscription-free digital public infrastructure (DPI) solution that integrates EUDR compliance with enterprise resource planning (ERP) functionality. The project addresses key barriers in digital traceability—such as high cost, proprietary technologies, and complex implementation—by offering a plug-and-play platform accessible to cooperatives, SMEs, startups, corporates, and governments.

- **Key Stats/Information:**
  - Combines **EUDR compliance tools** with **ERP systems** to create an all-in-one, open-access digital infrastructure.
  - Designed to be **open source**, like successful community-led tools (e.g., **QGIS, Linux, Deepseek**).
  - Revenue model is non-traditional and based on:
    - Grants
    - Sponsorships
    - Downstream partners with digital compliance obligations

- **Challenges:**
  - Many existing tools are:
    - **Proprietary**, limiting access
    - **Costly**, especially for smallholders and cooperatives
    - **Complex**, requiring high levels of effort and expertise
    - Small players struggle to meet **EUDR traceability requirements** due to these barriers.

- **Opportunities & Action Items:**
  - Democratize access to digital tools through open-source, plug-and-play design
  - Train cooperatives to use integrated tools effectively
  - Provide a pathway for sustainable monetization for startups building on the platform

- Increase adoption by releasing the platform via the Linux Foundation, ensuring long-term community support and visibility

- **Next Steps:**
  - Release the open-source platform via the Linux Foundation
  - Train cooperatives and SMEs in platform adoption and use
  - Showcase at PMB & DPI events to build awareness and attract contributors
  - Support startup incubation to explore monetization opportunities
  - Facilitate engagement from a broad ecosystem—governments, corporates, and grassroots actors—to grow adoption and sustainability

3. Coffee Biz:

- **Presented by:**
  - Mshauri wa Kahawa, Coffee Biz
  - In partnership with Ritho Farmers' Association

- **Summary:** AI-powered mobile advisory system designed to support smallholder coffee farmers with real-time, localized guidance on coffee nutrition, pest and disease management, and improved farming practices. Built in collaboration with the Ritho Farmers' Association, the tool addresses the widespread gap in extension services by delivering actionable insights directly to farmers' phones through a user-friendly, rural-accessible interface.

- **Key Stats/Information:**
  - 2,000 active farmers currently using the platform
  - Proven AI model delivering tailored agricultural advice
  - Multidisciplinary team
  - Existing knowledge repositories for:
    - Coffee nutrition
    - Pest and disease management

- **Challenges:**
  - Lack of timely and localized advisory for smallholder coffee farmers
  - Limited access to weather forecasts, pest alerts, and market price data
  - Under-resourced extension services with insufficient reach
  - Consequences: Low yields, post-harvest losses, increased vulnerability to climate shocks

- **Opportunities & Action Items:**
    - Leverage AI to scale access to personalized advice for farmers at low cost
    - Digitize farmer data to enhance model accuracy and coverage
    - Increase adoption through targeted outreach and training
    - Build on a proven user base to:
        - Expand use cases
        - Improve farmer livelihoods
        - Reduce agricultural risks

- **Next Steps:**
    - Expand functionality to include:
        - Real-time market reports
        - Soil management recommendations
        - Satellite-based plant health advisories
    - Scale user base beyond the initial 2,000 farmers
    - Continue partnering with cooperatives and stakeholders to expand geographic reach and service offerings

4. Kahawa AI: Co-Creating AI for the Coffee Ecosystem

- **Summary:** KahawaAI aims to leverage artificial intelligence to improve coffee production and market access for smallholder farmers. The project integrates AI-driven advisory tools with localized data to provide actionable insights on crop management, weather patterns, and market pricing. By combining advanced analytics with farmer-friendly delivery channels, the initiative seeks to enhance productivity, resilience, and income for coffee growers.
- **Key Statistics/Information:**
    - Focuses on supporting smallholder coffee farmers in target regions.
    - Utilizes AI models trained on local agronomic and environmental data.
    - Integrates market trend analysis to optimize selling strategies.
    - Builds on existing cooperative and value chain networks for adoption.
- **Challenges Addressed:**
    - Limited access to accurate, timely agronomic advice.
    - Market volatility and lack of transparent pricing information.
    - Climate variability impacting coffee yields and quality.
    - Technology adoption barriers among rural farming communities.
- **Opportunities and Action Items:**
    - Strengthen partnerships with local cooperatives for wider reach.
    - Expand data sources to improve AI model accuracy.

    - Develop farmer training programs to ensure effective adoption.
    - Explore partnerships with financial institutions to link AI insights with credit access.
- **Next Steps:**
    - Pilot the AI advisory system with selected coffee cooperatives.
    - Collect and integrate feedback from early users to refine the tool.
    - Scale deployment across additional coffee-growing regions.
    - Seek collaborations for sustainable funding and technology updates.

5. 100K for 100K Women in Coffee

- **Summary:** This initiative aims to empower 100,000 rural women in the coffee sector through a community-based financial platform using familiar tools like WhatsApp and mobile banking. The platform leverages an AI chatbot that functions in local languages/slang to support savings, microloans, and financial literacy.

- **Key Stats/Information:**
    - Women currently save through unsafe methods like “mattress banks” or informal groups.
    - Table banking alone accounts for 60–80 million KES annually, but is error-prone.
    - Platform offers saving from as little as 5 KES with a 100,000 KES ceiling.

- **Challenges:**
    - Limited access to formal banking services
    - High error/loss rates in informal savings systems
    - Language and literacy barriers

- **Opportunities & Action Items:**
    - Use of AI and chatbots to provide inclusive, localized support
    - Enable safe, accessible microfinance for rural women
    - Promote women-led agribusiness (agripreneurship)

- **Next Steps:**
    - Deploy AI bot
    - Deliver financial education and access to group-guaranteed loans
    - Scale community outreach through WhatsApp

6. AgriPath: Enhancing Gender Equity in Digital Advisory

- **Summary:** AgriPath is working to bridge the gender digital divide in agriculture by training and empowering women as “female digital champions” and providing digital literacy workshops to onboard them into AI-driven advisory systems.

- **Key Stats/Information:**
  - Men dominate use of digital ag services
  - Barriers for women: device access, digital literacy, exclusion from extension services

- **Challenges:**
  - Gender gap in access to mobile devices
  - Lack of tailored extension services for women

- **Opportunities & Action Items:**
  - Local workshops to build women’s digital literacy
  - Onboarding women to advisory tools like FarmBetter
  - Produce policy briefs and scalable data for broader uptake

- **Next Steps:**
  - Run pilots in RCT villages
  - Document results for policy and scaling
  - Strengthen DPI systems to be gender-responsive

7. Aminica: Tackling Biased Agricultural Information

- **Summary:** Aminica seeks to reduce biased agricultural advice by developing an AI algorithm that vets information sources and builds practitioner and farmer confidence through transparency and traceability of information outcomes.

- **Key Stats/Information:**
  - Many extension workers unknowingly deliver biased info (e.g., sales-influenced)
  - Focus is on boosting *trust* and *confidence* in ag knowledge

- **Challenges:**
  - Biased and misleading farming advice

- Low trust in information among farmers

- **Opportunities & Action Items:**
  - Train an AI model to vet sources and link them to real outcomes
  - Increase adoption of proven solutions by building farmer confidence
  - Train agronomists in trustworthy data use

- **Next Steps:**
  - Use grant funding to train algorithm
  - Roll out tool to farmer networks and advisors
  - Build system that links sources to trackable results

8. Agrifield: AI-Enabled Farm Advisory + Market Linkages

- **Summary:** Agrifield demonstrated how a Chatbot, AI mapping drone, and DPI-integrated market intelligence system can support smallholder farmers from land prep to sales. The platform enhances yield tracking and supports smarter market decisions.

- **Key Features:**
  - Chatbot guides farmers using AI-powered crop maps
  - Drones generate field intelligence
  - Market intelligence to advise when/where/how to sell

- **Challenges:**
  - Farmers lack real-time insights on yield and market timing
  - Fragmented value chain from field to sale

- **Opportunities & Action Items:**
  - AI to support yield management and income tracking
  - Market advice to improve timing and pricing of sales
  - Integration with open DPI to share intelligence

- **Next Steps:**
  - Build the AI Chatbot
  - Partner with Commonwealth DPI experts
  - Budget: $6,000 for AI advisory, $1,500 contingency, $18,000 total

9. **Youth-Led Coffee Traceability for EUDR Compliance**.

- **Presenters:**
  - ASEL Agri-Solutions Enterprises Ltd

- **Summary:** The ASEL-Agri Youth TraceForce proposes a youth-powered coffee traceability network to support Kenyan smallholder farmers in meeting EU Deforestation Regulation (EUDR) compliance requirements before the December 30, 2025 deadline. The initiative leverages rural youth—often underemployed but digitally connected—as a decentralized workforce to map farms, tag coffee plots, and collect EUDR-compliant data using open-source digital public infrastructure (DPI) tools such as the FAO Open Forest Ground App and ITC's Deforestation-Free Trade Gateway (DFTG). The result: compliant farmers gain access to premium markets, and youth secure meaningful digital work.

- **Key Stats/Information:**
  - 6,324 farmers already supported for EUDR compliance in Bungoma County
  - Supported 4 coffee estates and 3 cooperatives in achieving EU Organic Certification
  - Familiar with and using:
  - FAO's Open Forsest Ground App for data collection
  - ITC's DFTG platform for trade compliance and traceability
  - Goal (in 3–4 months):
    - Train 60 youth in 8 counties
    - Map 3,000+ farms
    - Deliver EUDR-compliant data
    - Build proof-of-concept for national scale-up

- **Challenges:**
  - Lack of **digital tools and skills** among Kenyan coffee farmers for EUDR compliance
  - **Inaccessibility of extension services** and technical support
  - Risk of **losing market access** and income without compliance
  - **Youth unemployment** in rural areas despite smartphone access
  - **Urgent regulatory deadline** of December 30, 2025

- **Opportunities & Action Items:**
  - Empower rural youth as a scalable data-collection and traceability workforce

    - Promote farmer ownership of data to ensure transparency and control
    - Use free, open-source DPI tools to lower barriers to entry and cost
    - Integrate AI for real-time data validation and quality control
    - Collaborate with:
        - Cooperatives for mapping and onboarding
        - National systems (e.g., NCLS) and 3rd-party providers for potential data integration
    - Demonstrate a replicable, certification-ready model for other regions or value chains

- **Next Steps:**
    - Train and deploy a first cohort of 60 youth across 8 counties
    - Map over 3,000 coffee farms and collect land-use and risk data
    - Build out digital compliance dashboards and test integration with national systems
    - Engage policymakers and value chain actors to share learnings
    - Lay the groundwork for national replication and expansion to other crops and regions

Winning Project

The winning project was **Youth-Led Coffee Traceability for EUDR Compliance**.. This ambitious initiative, led by Agri-Solutions Enterprises Ltd (ASEL), aims to help smallholder Kenyan coffee farmers meet the upcoming EU Deforestation Regulation (EUDR) compliance deadline of December 30, 2025. Most farmers currently lack the digital tools and skills required for traceability and land-use data reporting, putting their access to EU markets at risk. At the same time, rural youth face high underemployment despite increasing access to smartphones and digital platforms.

This project bridges both challenges by training and deploying 60 rural youth across eight counties as digital compliance agents. These youth will support over 3,000 coffee farmers in mapping farms and collecting EUDR-compliant data using free, open-source tools like the FAO Open Foris Ground App and the ITC Deforestation-Free Trade Gateway. Deliverables include a live compliance dashboard for cooperatives, two milestone reports, and national policy recommendations. By empowering youth as “digipreneurs” and centering farmers in the process, ASEL is building a scalable, inclusive model for climate-smart, traceable coffee trade in Kenya.

Closing Circle: The Path Forward

Facilitated by the AGX Team

Day 2: 4:15 PM – 4:30 PM

The final session of the AGX Unconference concluded with acknowledgements and a strong call to action. Organizers expressed deep appreciation for the collaborative efforts that made the event possible, highlighting key partners including CGIAR, ILRI, GIZ, the DiasCA program, i4Ag, the Gates Foundation, and DevGlobal. Special thanks were extended to Jawoo Koo, Ram, Rico, Stuart, Kuza, Sheena, and the DevGlobal/DevAfrique teams, whose dedication was instrumental in the event's success.

Commitment Wall Activity

To catalyze ongoing collaboration, participants were invited to engage with a Digital Commitment Wall during the closing session by responding to the prompt: “My Commitment & My Ask.” Participants were asked to reflect and contribute two key inputs:

1. **One action they personally commit to** regarding AI and digital public infrastructure (DPI).

2. **One thing they need from the AGX community** to help advance their work.

Contributions were submitted digitally and in writing, forming a collaborative launchpad for future engagement.

Sample Commitments Included:

- Documenting and sharing successful DPI (Digital Public Infrastructure) case
- Forging meaningful partnerships to scale AI for smallholder farmers
- Decentralizing platforms
- Sharing case studies on DPI across African countries
- Exploring how AI and DPI can positively impact women in the coffee sector

Participants' Requests from the AGX Community:

- More ideation sessions and unconferences
- Support in collecting and documenting successful DPI case studies
- A community newsletter to showcase member initiatives
- Collaboration with the Association of Women in Coffee Industry – Kenya

This participatory exercise highlighted the community's energy and identified practical next steps for collective action.

Closing Pulse Check Survey

Participants also repeated the pulse check survey from the beginning of the event to measure shifts in perspective and help shape the direction of future AGX efforts.

The results from the Mentimeter survey are listed below:

A comparison between the initial and final pulse surveys reveals a positive shift in participants' understanding and confidence in key topic areas addressed during the event:

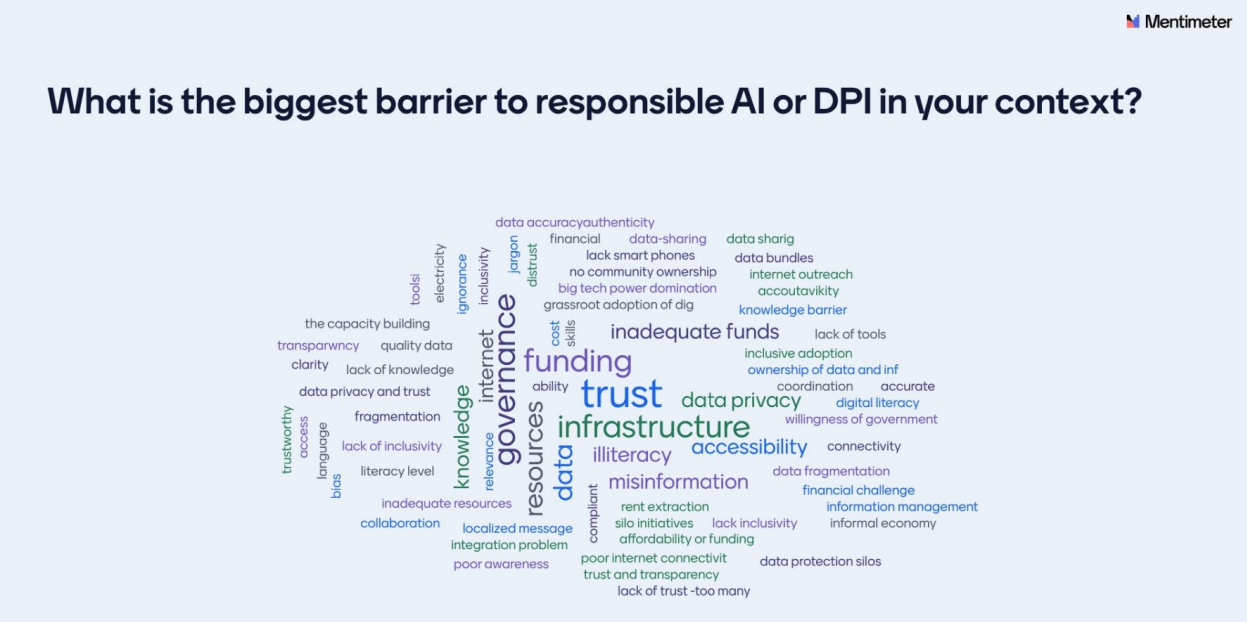
- **Understanding the relationship between AI and Digital Public Infrastructure (DPI)** in agricultural development showed a meaningful increase from **3.5 to 4.1**, indicating improved clarity on the connection between these technologies.

- **Belief in AI's potential to benefit small-scale producers and digital innovators** remained high, with a slight dip from **4.3 to 4.1**, suggesting consistent optimism, though with a small decrease possibly reflecting more nuanced understanding of challenges or tempered expectations after deeper discussion.

- **Comprehension of what makes a DPI truly "public" and inclusive** rose significantly from **3.3 to 4.1**, pointing to a strengthened grasp of the core principles of inclusivity in digital infrastructure.

- **Clarity on the role participants' organizations can play in advancing equitable digital tools** increased from **4.0 to 4.1**, demonstrating an increased understanding of actionable next steps and opportunities for involvement.

Overall, the event successfully deepened participants' understanding of key concepts, especially around DPI and inclusivity, while maintaining strong confidence in AI's relevance to small-scale agriculture.



Area	Initial Votes	Initial % (of 66)	Final Votes	Final % (of 31)	Change in Votes	Change in % points
Data	23	34.8%	9	29.0%	▼ -14	▼ -5.8%
AI	10	15.2%	7	22.6%	▲ +3	▲ +7.4%
Partnerships & Coordination	10	15.2%	7	22.6%	▲ +3	▲ +7.4%
Capacity Building	13	19.7%	5	16.1%	▼ -8	▼ -3.6%
Innovation	6	9.1%	5	16.1%	▲ +1	▲ +7.0%
Policy	7	10.6%	1	3.2%	▼ -6	▼ -7.4%
Investment	3	4.5%	2	6.5%	▲ +1	▲ +2.0%

Over the course of the AGX conference, participant interests and perceived priorities shifted noticeably, reflecting a dynamic learning process and evolving understanding of the ecosystem's critical areas.

Initially, Data was the dominant focus, accounting for nearly 35% of votes, highlighting participants' recognition of its foundational role. By the end of the event, while Data remained important, its relative emphasis decreased (▼ -14 votes, ▼ -5.8 percentage points), suggesting that participants broadened their perspectives and began to appreciate the interconnectedness of other emerging areas within the ecosystem.

Significant increases in focus were seen in AI and Partnerships & Coordination (both ▲ +3 votes, ▲ +7.4 percentage points). This shift suggests that as participants progressed through the conference, they developed a stronger awareness of how artificial intelligence and collaborative efforts drive innovation and system-wide impact. The growing emphasis on these areas likely reflects exposure to practical applications and success stories shared during the event.

Conversely, interest in Policy and Capacity Building declined (Policy ▼ -6 votes, ▼ -7.4 percentage points; Capacity Building ▼ -8 votes, ▼ -3.6 percentage points). This change may indicate that while policy and capacity building are important, participants found other topics more directly relevant or actionable in the context of AGX. It might also reflect a realization that these areas require longer-term engagement beyond the event's scope.

Areas such as Innovation and Investment showed modest but meaningful growth (Innovation ▲ +1 vote, ▲ +7.0%; Investment ▲ +1 vote, ▲ +2.0%), signaling a rising recognition of the role innovation plays in driving progress and the importance of securing financial resources to support scalable solutions.

Overall, these shifts illustrate a learning trajectory where participants moved from a primary focus on data fundamentals toward a more diversified understanding emphasizing AI, collaboration, and innovation as key drivers in the agricultural technology space. This expanded perspective reflects the conference's effectiveness in exposing attendees to both foundational knowledge and forward-looking trends, fostering a more holistic view of the sector's challenges and opportunities.

Question: What's one idea or partnership you're excited to explore after this convening?
Themes & Highlights from 20+ responses:

Partnerships & Collaboration

- Public-private partnerships and including the private sector in DPI development
- Addressing digital gender and wealth divides through inclusive partnerships

- Multi-stakeholder partnerships to support smallholder farmers
- Connections and collaboration across sectors and regions

Data & Digital Infrastructure

- Co-ownership and responsible sharing of data
- Development of centralized or regional data repositories
- Evaluation and strengthening of existing DPI systems
- Expansion of digital access and literacy for smallholder farmers

AI & DPI Applications

- Localization of AI and DPI for African contexts
- Integration of AI with existing agricultural solutions
- Application of AI for monitoring, compliance, and sustainability

Farmer-Centric Design

- Involvement of farmers and communities in digital tool design
- Empowerment of farmers through data ownership and control
- Design of digital solutions that prioritize farmer needs and sustainability

Emerging Ideas

- Address EUDR compliance and its local impact
- Explore blended financial models to support innovation
- Create independent advisory services for agriculture
- Develop geo-enabled monitoring tools
- Support youth-led innovation and engagement

Question: What has shifted in your thinking today?
Themes & Reflections from 15 responses:

Conceptual Shifts

- Realization of how DPI and AI are closely connected
- Recognition that Africa needs its own AI and DPI models
- Understanding the importance of DPI in agricultural contexts
- Acknowledgment that AI is the solution for agribusiness
- Reflection on the disconnect between elites and on-the-ground realities

Mindset Changes

- Increased conviction on the depth of the issue and need for action
- Growing curiosity about innovative AI applications for smallholders
- Greater openness to stakeholder collaboration, especially around data
- Acknowledgment that AI can meaningfully support agribusiness

Foundational Needs

- Coordination between public and private sectors is essential
- Farmers need support to host and manage their own data
- Importance of ensuring data protection frameworks for collaboration
- Support systems required for farmer data ownership and access rights

Human-Centered Insights

- Farmers are the givers and should own their data
- Farmers lack infrastructure to manage data despite being key contributors
- Recognition of real-world challenges facing smallholders and disconnect with decision-makers

Implementation-Oriented Realizations

- Gained understanding on how to implement better results
- Interest in using AI for last-mile decision-making
- Noted practical uses of AI and how it can improve agribusiness
- Increased understanding of how AI works

Closing

The session and event closed with a final thank you to all attendees for their energy, participation, and ideas, as well as information on how to remain engaged in the AGX community.

Ways to Stay Engaged

The spirit of an Unconference is rooted in ongoing dialogue, not only during the event itself, but also through an enduring, growing, and connected community. Let's keep the momentum going as we return to our respective communities!

We encourage all participants to continue engaging with AGX. Our next AGX Unconference will be held in Bengaluru on October 6 - 7, 2025. We hope you will join us! Please visit the AGX Website for event information as it becomes available.

Participants are also encouraged to join the AGX WhatsApp Community to stay in conversation with fellow participants, share ideas, and hear the latest from across the ecosystem.

If you would like to help shape collective knowledge by contributing to the discussion papers working groups on Data Corpus, Models, and Benchmarking, please email agx@dev.global.

You can also continue building collective knowledge by adding to the community-sourced resources document, a living library built by and for this network.

Let's keep the energy alive! Take a moment to view or upload your photos from the event and help amplify the experience by posting on social media using #AGX.

This is just the beginning—your voice and contributions are what make this community thrive. Thank you again for joining us in Nairobi.

Appendix 1. Weblinks to the video recordings published on AgX website

1. Setting the Stage
   - Ram Dhulipala (CGIAR), Brian King (Alliance Bioversity International & CIAT), Dr. Timothy Mirugi (New Kenya Planters Co-operative Union)
   - The inaugural AGX AI Unconference opened with a warm welcome from Ram Dulippala, Senior Scientist at ILRI and Interim Chief Digital Transformation Officer of CGIAR. He emphasized the event's unique focus on AI and Digital Public Infrastructure (DPI) in agriculture, describing it as a new chapter following the legacy of ICTforAg. Ram framed AGX as a platform to grow a diverse, global community of researchers, innovators, and practitioners driving transformation in agriculture through inclusive and responsible technology. Brian King, Senior Manager for Technology Integration at the Alliance of Bioversity and CIAT, then introduced a keynote address by Timothy Mirugi, Managing Director of the New Kenya Planters Cooperative Union (KPCU). Mr. Mirugi delivered an inspiring overview of Kenya's bold agricultural transformation strategy. He outlined KPCU's mission to support farmers—especially in the coffee value chain—through processing, market access, advisory services, and digital finance tools such as the Cherry Fund.

2. Voices from the Field
   - Jeremiah Letting (Nandi Coffee Co-op), Vincent Kiplimo (Toroton Farmers Co-op), and Peter Kibet (Toroton Farmers Co-op)
   - Facilitated by Sheena Raikundalia (Kuza One)
   - The "Voices from the Field" session was a powerful highlight of the AGX AI Unconference, spotlighting firsthand experiences from farmers, agronomists, and technologists tackling agricultural challenges on the ground. Facilitated by Sheena Raikundalia, Chief Growth Officer at Kuza Biashara, the session illustrated how local knowledge, digital tools, and community-led models can drive meaningful change in agricultural systems.

3. Interactions Between AI and Digital Public Infrastructure: Concepts, Benefits, and Challenges
   - David Eaves (University College London) via pre-recorded interview
   - Moderated by Jawoo Koo (IFPRI)
   - This keynote-style conversation between Prof. David Eaves and Jawoo Koo explored the intersection of Artificial Intelligence (AI) and Digital Public Infrastructure (DPI), emphasizing how the two can work together to create meaningful, inclusive, and scalable public value—particularly in agriculture and food systems.

4. Framing the Landscape for Smarter, More Efficient Agriculture
    - Lucy Wambui Maina (Ritho Cooperative), Minnie Wanjiku (FarmBetter), Benjamin Kwasi Addom (The Commonwealth), George Watene (Global Coffee Platform), Florence Kinyua (GIZ)
    - Moderated by Sheena Raikundalia (Kuza Biashara)
    - This panel explored how digital public infrastructure (DPI) and artificial intelligence (AI) can meaningfully support smallholder farmers and cooperatives—without losing sight of the human systems and community trust at the heart of agriculture.

5. Working Group A: AI and DPI for Agricultural Advisory: What Will It Take?
    - Minnie Wanjiku (FarmBetter), Kibrom Sibhatu (icipe)
    - This breakout session explored the opportunities and limitations of applying APIs (Application Programming Interfaces) and DPI (Digital Public Infrastructure) to improve agricultural advisory services in Sub-Saharan Africa. Drawing from their work on the Agripass project and broader regional experiences, Kibrom and Minnie guided a participatory discussion on the current gaps in extension systems, the potential of AI and digital tools to close these gaps, and what's needed to make digital advisory services scalable, inclusive, and impactful.

6. Working Group B: Sustained Action and Impact to Enhance GenAI for Ag Benchmarking in Sub-Saharan Africa and India
    - Facilitators: Michael Minkoff & Siva Balasubramanian (Athena Infonomics)
    - This breakout session, led by Mike Minkoff from Athena Infonomics, explored how to strengthen benchmarking for AI-driven agricultural advisory tools in Sub-Saharan Africa and India. Building on a "living" benchmarking discussion paper and momentum from the May 20 Gates + Bayer workshop, participants reviewed the promise of AI-powered advisors and the challenges of evaluating them in diverse, smallholder contexts.

7. Working Group C: Co-Creating Equitable, Localized, Low-Cost AI Solutions for Small-Scale Producers
    - Facilitators: Shuko Musemangezhi & Malcolm Durosaye (Dev-Afrique Development Advisors)
    - This breakout session convened 16 participants and was organized into three subcommittees: 1. Technology and Data 1. Policy and Partnership 1. Extension and Implementation A brief framing presentation was made before the subcommittee breakouts. Due to the profile and expertise of the participants, only the Technology and Data and Extension and Implementation subcommittees were actively engaged and discussed at length, with policy being slightly addressed during the session. The discussion focused on practical pathways for developing and deploying localized large language models (Agri-LLMs) that are accessible, inclusive, and effective for smallholder farmers.

8. Discussion: Inclusivity in DPI & AI
    - Facilitated by Jawoo Koo
    - This session invited attendees to engage in small-group discussions around two critical themes shaping the future of digital public infrastructure (DPI) and artificial intelligence (AI) in agriculture: Inclusivity and Governance & Data Ownership.
    - Guiding Questions:
        - Inclusivity in DPI & AI
        - Who is being left out of DPI & AI efforts right now?
        - What are the key risks of exclusion?
        - What are 1–2 practical ways to build inclusion into DPI & AI design and deployment?

9. Discussion: Governance & Data Ownership
    - Facilitated by Jawoo Koo This session invited attendees to engage in small-group discussions around two critical themes shaping the future of digital public infrastructure (DPI) and artificial intelligence (AI) in agriculture: Inclusivity and Governance & Data Ownership.
    - Guiding questions: Governance & Data Ownership
        - Who should control data in DPI & AI systems—and why?
        - What governance models or principles can protect public interests?
        - What are 1–2 next steps for advancing good governance?

10. The Commons Debate: Digital Infrastructure and the Public Interest
    - Facilitators: Brian King (Alliance Bioversity & CIAT), George Watene & Sandra Ndichu (Global Coffee Platform)
    - This highly interactive session explored divergent and converging views on the roles of government and the private sector in building and managing digital public infrastructure (DPI) for agriculture.
      Participants physically positioned themselves along a spectrum in response to provocative prompts, sparking lively debate and mutual reflection on three key themes: Public vs. Private Sector Leadership, Data Transparency vs. Privacy, and Financing DPI.

11. Fireside Chat: “How I Changed My Mind”
    - Facilitated by Sheena Raikundalia (Kuza One)
    - This reflective session invited three volunteers to share moments from Day 1 where their thinking shifted, whether prompted by stories, data, questions, or debates. Their candid sharing highlighted the power of remaining open to new ideas and surfaced key insights to guide ongoing conversations and solution-building.
    - Volunteers:
        - Jonah Specker, FAO Forestry Department, working on the Forest Monitoring and Data Platform, developing digital public infrastructure solutions.
        - Raymond Cutter, Produce Monitoring Board, Sierra Leone, regulator for commodities.
        - Suzanne Jahir, Head of Innovation at Hello Tractor.

12. Magic Wand session: Solutions for advisory services, data governance, and financial services
    - Facilitated by Sheena Raikundalia (Kuza One)
    - This highly interactive session invited participants to imagine bold, transformative solutions to persistent challenges in advisory services, data governance, and financial services. Using the prompt of a "magic wand," table groups co-created ambitious ideas unconstrained by current limitations but grounded in real-world needs.
    - The session included a live Mentimeter poll where each group shared:
        - The challenge they focused on
        - Their bold, visionary idea
        - The target audience or beneficiaries

13. Working, Failing, Learning: What AI and DPI Teach Us in Practice
    - Facilitated by David Jon Bergvinson (DevGlobal)
    - This session explored real-world successes and challenges in applying AI to agricultural advisory services. Participants shared practical examples highlighting both promising outcomes and persistent obstacles, particularly around technology adoption, ethical considerations, and building trust with smallholder farmers. These insights underscored the importance of centering human experience, fostering inclusion, and innovating beyond technology alone to create sustainable, effective solutions for agriculture. The session laid a foundation for learning from past efforts to improve future AI-enabled advisory systems.

14. Inspire Challenge Pitch session
    - Facilitator: Jawoo Koo (IFPRI)
    - Judges: Ram Dhulipala (CGIAR/ILRI), Tawanda Hove (Gates Foundation), Jerome Scheuren (GIZ), Sheena Raikundalia (Kuza One), David Bergvinson (DevGlobal)
    - Inspire Challenge Pitches included:
        1. Ethiopia Buna Chain: Buna chain-Ethiopia's coffee traceability platform PMB & AgriOS: EUDR + ERP = DPI
        2. Coffee Biz: Mshauri wa Kahawa
        3. Kahawa AI: Co-Creating AI for the Coffee Ecosystem
        4. Women Power Team: 100K for 100K
        5. AgriPath: Bridging the gender gap in the digital advisory system
        6. aminika: Information going down the value chain is biased
        7. Agri Field: Increasing yields, Increasing income
        8. ASEL Agri - Youth Trace Force: Youth Led Coffee Traceability for EUDR