INITIATIVE ON
Digital Innovation

CGIAR

ICTforAg Learning Network: Annual report
December 2024

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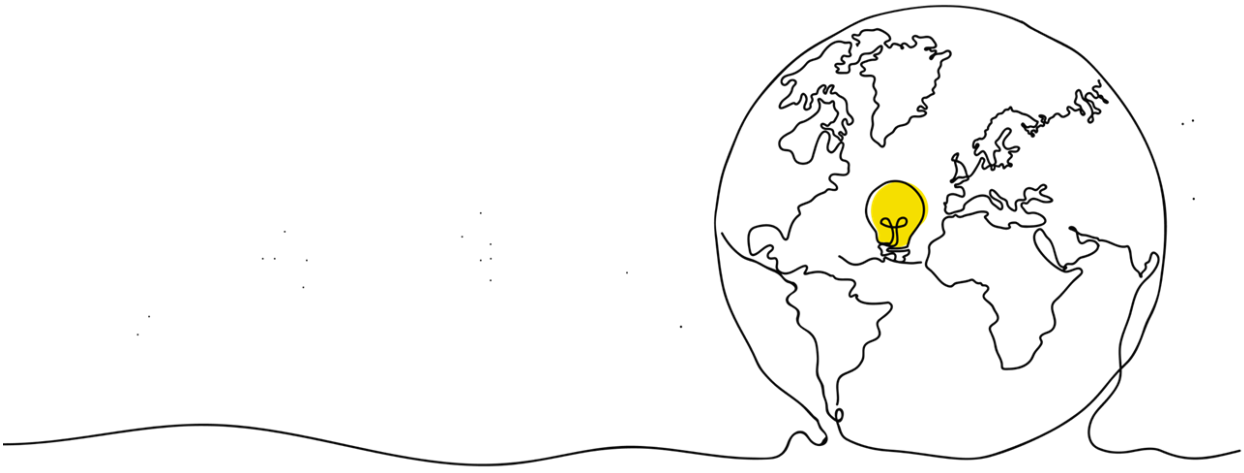

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1. Background

Global South's diverse agricultural practices, characterized by small-scale farming, face unique challenges and require customized solutions to enhance productivity and sustainability in the agri- food sector. The increasing digital divide, weak information systems, and limited infrastructure, particularly in rural areas, pose significant obstacles to productivity, profitability and food security.

This digital divide, along with issues like fragmented systems that lack interoperability, ethical concerns around data privacy in AI, and the absence of collaborative spaces, slows down the adoption of innovative solutions. To address these barriers, a more collaborative approach is essential.

In response, **CIMMYT**, under the **CGIAR Initiative on Digital Innovation**, developed Co-Lab. It is a community-driven platform that enables responsible ideation, innovation, validation, and scaling of digital innovation by connecting diverse individuals and groups. The platform's main aim is to facilitate the co-creation of impactful, context-specific solutions that resonate with the unique needs of agricultural systems across the Global South. By fostering an environment of collaboration and partnership, Co-Lab aims to address the major issue of isolated digital innovation in agri-food systems. In January 2024, ICTforAg, the annual convening of agrifood system stakeholders, technology experts, and enthusiasts, adopted Co-Lab to extend its impact beyond the event. This initiative was branded as the ICTforAg Learning Network, a collaborative networking platform dedicated to democratizing the digital agri-food system through stakeholder engagement and collaboration. The platform fosters collaboration and knowledge exchange among the actors to transform digital agri-food systems. The key pillars of the ICTforAg Learning Network include:

1) **Virtual Collaborative Space**, a hub that fosters collaboration and discussions among stakeholders of the digital agri-food systems
2) **Innovation Showcase**, a stage that features digital innovations from the Global South
3) **Mentors Connect**, a network facilitates peer-to-peer mentorship
4) **AgroTutor Academy**, a platform that hosts and delivers courses through online mode and WhatsApp

This report provides a space-specific overview of progress, emphasizing key events that marked significant milestones. It also reflects on the insights gained and outlines plans for the platform's future development and activities.

2. Beyond a Community of Practice

The ICTforAg Learning Network goes beyond being just a community of practice. By bringing together diverse stakeholders - including ag-tech companies, private sector organizations, governments, research institutions, and farmer organizations - we aim to exchange knowledge, build capacity, offer mentorship, showcase innovations, and create a collaborative environment to co-create responsible and impactful digital solutions.

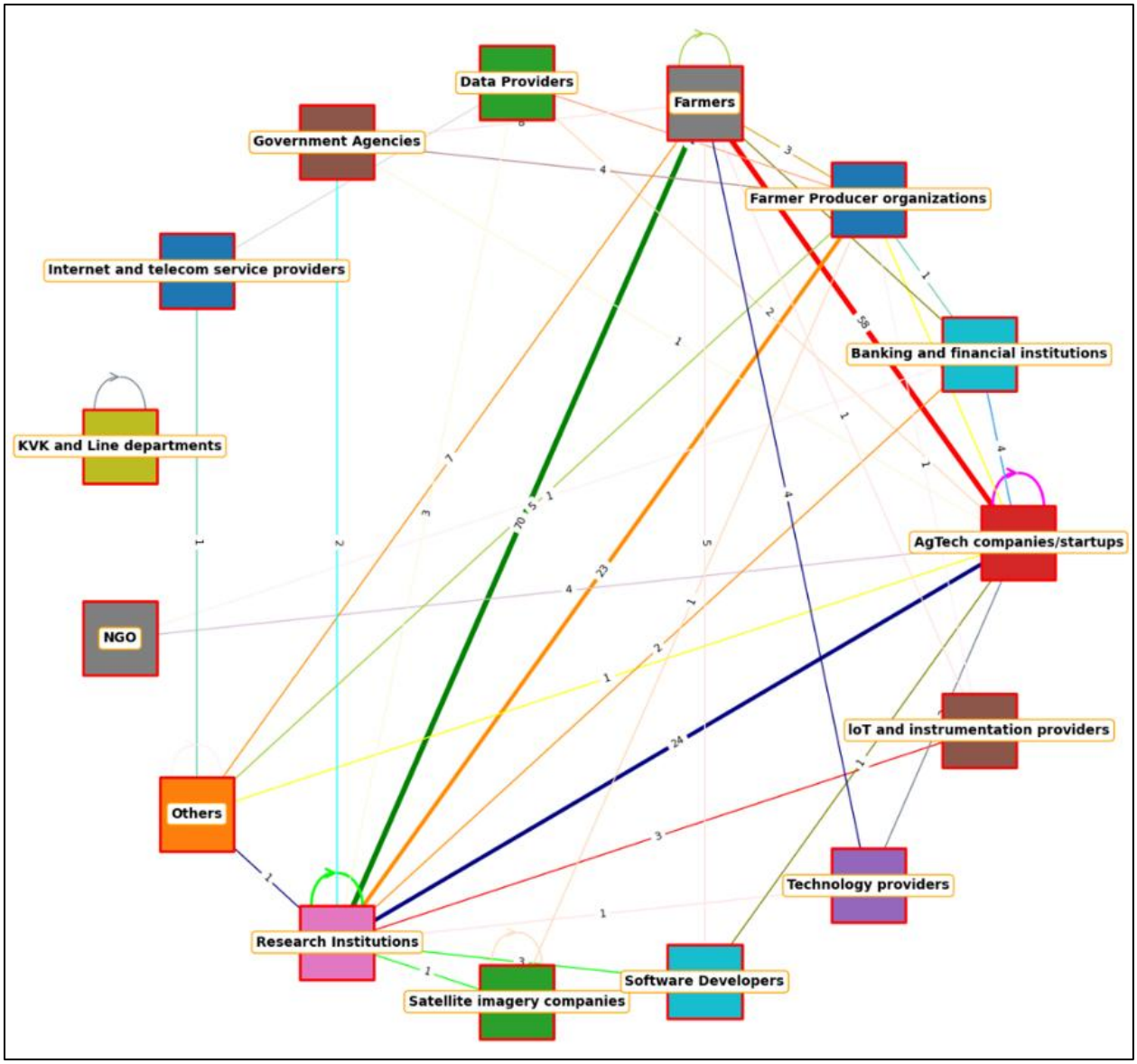

Figure 1: Network map of type of organizations and important actors

The users of the platform seek to connect with various types of actors, and the ICTforAg Learning Network is facilitating these connections. Figure 1 depicts network map of organization/company types and important actors they wish to engage with is shown in the

graph. Since the users themselves represent different actor types, this map illustrates the interconnections that are made possible through the platform.

Network map reflects a strong interconnection, particularly among three key actors in the digital agri-food ecosystem: Farmers, Agtech companies/startups, and Research Institutions. Additionally, there is a notable connection between Research Institutions and Farmer Producer Organizations (FPOs). While there are connections among other actors, they are not as strong as those between the mentioned groups. Through the ICTforAg Learning Network, we aim to further strengthen the interconnections among all actors involved.

3. Month-wise metrics of ICTforAg Learning Network

The following table presents a month-wise breakdown of key metrics for the ICTforAg Learning Network. This data highlights user engagement, collaborations, innovations, mentors added, and search queries over time. By tracking these metrics, we can gain valuable insights into the effectiveness of our strategies and identify areas for further improvement.

Month	Number of new users	Number of collaborations created in Collaborative space	Number of innovations added in Innovation Showcase	Number of mentors added in Mentors Connect	Number of searches in DINA
March	158	3	35	6	62
April	292	5	5	7	12
May	135	1	2	7	97
June	47	1	11	5	85
July	43	1	3	1	37
August	17	0	2	0	118
September	17	0	4	0	32
October	28	1	1	0	19
November	45	0	1	2	24
December	13	0	8	1	36
Total	795	11	72	29	522

4. User engagement

The ICTforAg Learning Network officially soft-launched in March, with invitations sent to innovators and potential mentors within the existing ICTforAg community. Since then, the platform has grown significantly.

During the soft and hard launch phases, approximately 350 users joined the platform. This growth saw a further boost in April, around the *ICTforAg Localizing Impact* event, an annual convening where agrifood system stakeholders, technology experts, and enthusiasts gather to share knowledge, find solutions, and form partnerships to address challenges in agri-food systems across low and middle-income countries, held across five different countries.

In May, the event allowed us to start conversing about the platform and showcase the Learning Network directly to conference attendees. By the end of the three-day event, approximately 130 new users joined the platform, bringing diverse stakeholders with expertise and perspectives from various locations.

Currently, the platform has **795 registered users**, with the majority coming from key regions in the Global South. This reflects the platform's commitment to fostering connections and collaboration among stakeholders in the Global South. The platform receives an average of **21 site visitors** per day, reflecting consistent daily engagement from users who likely access it for resources and collaboration opportunities. This steady traffic highlights the platform's relevance to its audience.

5. Virtual Collaborative Space

The Virtual Collaborative Space of the ICTforAg Learning Network offers a flexible environment that fosters teamwork and innovation to drive digital innovation in the agricultural sector. It facilitates an environment to experiment, share ideas, and test context-specific solutions without real-world risks. The Virtual Collaborative Space facilitates meaningful thematic based collaboration and conversations that help to accelerate the engagement amongst the key stakeholders of the digital agri-food systems. Currently, it hosts **11 collaborations, 5 public collaborations and 6 private collaborations** each tailored to serve unique purposes and engagement styles.

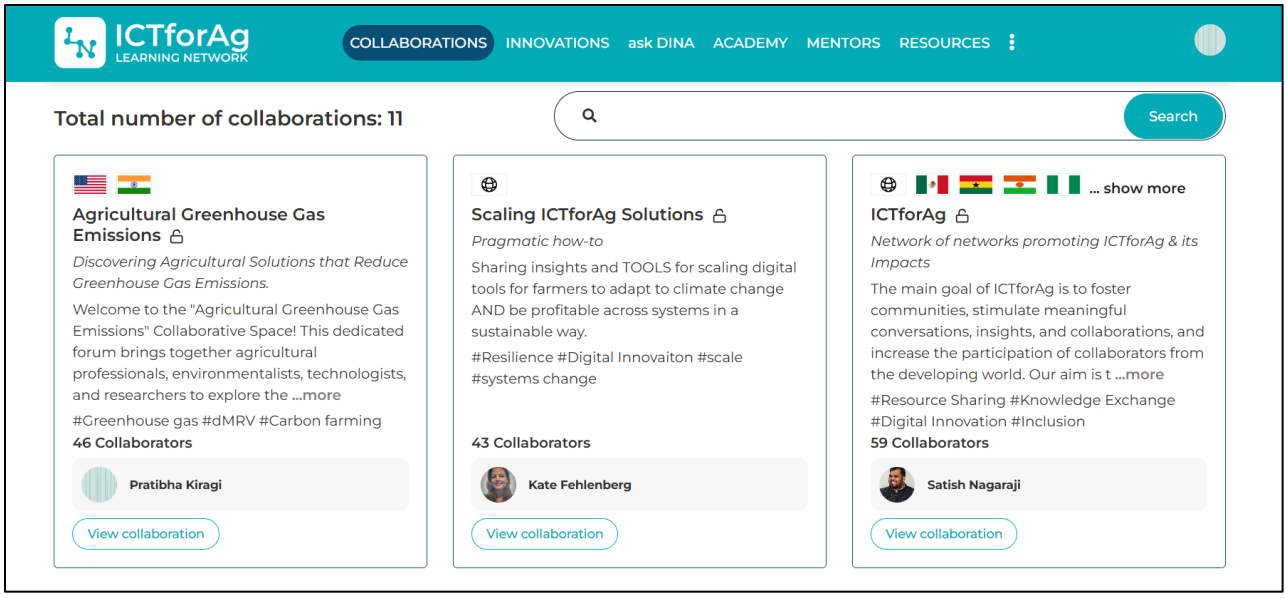

Figure 2: Virtual Collaborative Space of ICTforAg Learning Network

5.1 Early initiatives and engagement highlights

In April, the platform saw a promising start with the creation of five private collaborations by Roberto Christen, focusing on tracking the progress of Inspire Challenge pilots, providing inputs, and sharing knowledge. This initial engagement helped analyze functionality and implement features based on user feedback, ensuring the platform meets their evolving needs.

In May, the Learning Network Community Spotlight session, held during ICTforAg Localizing Impact's Virtual Day, engaged 22 participants. This session included a live demonstration of the Collaborative Space's functionality and virtual breakout discussions focused on high-priority topics: high-frequency monitoring for agri-food systems, AI in agriculture, online distance learning, and carbon farming. Hosted by ICTforAg NextGen Ambassadors, the session provided an opportunity to identify community challenges and generate collaboration ideas. While the session successfully drove engagement, future iterations could benefit from being scheduled as standalone workshops to maximize participation.

This event attracted new users to the platform and stimulated activity in existing collaborations, such as ICTforAg, Policy Framework for Data Sharing, and eAgrology, which began receiving more collaborators. Enthusiastic users were also inspired to create their own collaborations, enriching the platform further.

5.2 Notable active collaborations

- **ICTforAg**, moderated by Femi Adekoya, currently has 59 collaborators. This public collaboration is centered around the primary goal of fostering communities, stimulating meaningful conversations, generating insights, and encouraging active

participation from collaborators in the developing world. The collaboration aims to facilitate knowledge exchange, enhance learning opportunities, and inspire professionals to develop inclusive and sustainable ICT solutions for the agri-food sector.

- **Scaling ICTforAg Solutions**, a public collaboration moderated by Kate Fehlenberg, focuses on sharing insights and tools to scale digital solutions that enable farmers to adapt to climate change while maintaining profitability and sustainability. It currently has 43 collaborators actively participating.
- **Agricultural Greenhouse Gas Emissions**, a public collaboration moderated by Anthony Fulford, brings together agricultural professionals, environmentalists, technologists, and researchers to explore advancements in greenhouse gas measurement and monitoring. This collaboration aims to foster discussions, share innovative knowledge, and develop solutions for accurate measurement, carbon footprint reduction, and sustainable agriculture. It currently has 46 active collaborators.

5.3 Insights

Efforts are ongoing to maintain and enhance the activity within these spaces. The learnings so far emphasize the importance of consistent follow-up with moderators to understand their engagement plans. Strategies include encouraging moderators to maintain content calendars, addressing collaborator needs, and adapting engagement approaches to ensure sustained interaction and value creation within the Virtual Collaborative Space.

The Virtual Collaborative Space has consistently evolved, incorporating new features based on user feedback to enhance its usability and functionality. While some collaborations thrive with active engagement, others require strategic efforts to kickstart meaningful interactions and maximize their potential.

6. Innovation Showcase

The Innovation showcase features an extensive library of innovative solutions and products by entrepreneurs to revolutionize agri-food systems. These resources equip actors in the agri-food sector with the latest advancements and research. From precision farming technologies to AI-driven data insights, these resources offer a curated selection of innovations designed to increase efficiency, reduce costs, and empower farmers with actionable information. Currently, the platform showcases **72 digital innovations**, with a majority coming from India, Kenya, and Guatemala.

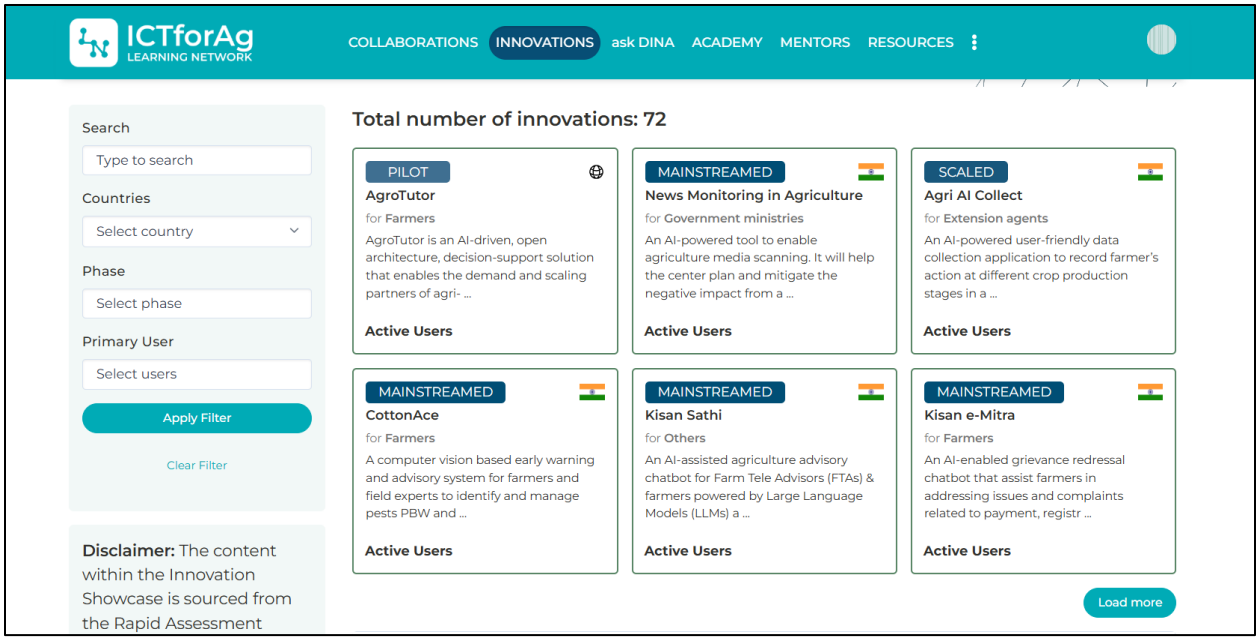

Figure 3: Innovation Showcase of ICTforAg Learning Network

6.1 Key milestones and engagement

In March, approximately 30 digital innovations were added by the Learning Network team from the CGIAR Digital Innovation Rapid Assessment Survey. This data, collected last year, included detailed information about the innovations, such as their revenue models, primary and secondary target audiences, and key functionalities.

May marked the first virtual Innovation Showcase event, which introduced the platform's features and functionality to participants. The event included lightning talks to highlight innovations and promote cross-regional knowledge sharing. While 167 participants registered for the session, 34 attended, and the recording was shared with all registrants to ensure continued engagement.

In May, the ICTforAg Localizing Impact event became a pivotal moment for innovation recruitment. Held across five countries, the event allowed us to showcase the ICTforAg Learning Network directly to conference attendees. With the support of DevGlobal, innovators were onboarded during the event and followed up via email. This outreach resulted in additional innovations being added to the platform, fostering ongoing conversations with these contributors.

In September, efforts focused on updating innovations sourced from the Rapid Assessment Survey. Specific links were created for each contact person, enabling them to easily access and update their innovation details. This streamlined approach ensured accurate and up-to-date information within the Showcase.

In November, the Innovation Showcase - Registration Workshop was conducted twice:

1. November 26 - 6:00–7:00 AM PST | 8:00–9:00 AM CST | 3:00–4:00 PM WAT | 5:00–6:00 PM EAT | 7:30–8:30 PM IST
2. November 26 - 7:00–8:00 AM PST | 9:00–10:00 AM CST | 4:00–5:00 PM WAT | 6:00–7:00 PM EAT | 8:30–9:30 PM IST

The workshop saw 92 registrations, with 68 participants attending. The session began with an introduction to the ICTforAg Learning Network and the Innovation Showcase Space, including a demonstration of how participants could add their innovations to the showcase. Following this, breakout rooms were organized to address questions and resolve doubts related to the registration of innovations.

6.2 Insights

These initiatives underscore the importance of combining offline engagements with consistent follow-ups to achieve meaningful progress in recruiting digital innovations. Offline events provide direct opportunities to connect with innovators, while follow-ups help sustain interest and translate initial interactions into tangible contributions to the platform. Moving forward, efforts will remain centered on identifying and onboarding transformative innovations that align with the platform's vision. By doing so, the Showcase will continue to grow as a vibrant space for collaboration, knowledge exchange, and the advancement of digital solutions that address critical challenges in agriculture and food systems globally.

7. Mentors Connect

Mentors Connect allows for peer-to-peer guidance and offers personalized advice for agricultural practices. By allowing experts in the field to become mentors, the platform encourages knowledge sharing, enriching the learning experience and fostering diverse expertise. Currently, Mentors Connect hosts **30 mentors** specializing in various fields of digital agri-food systems.

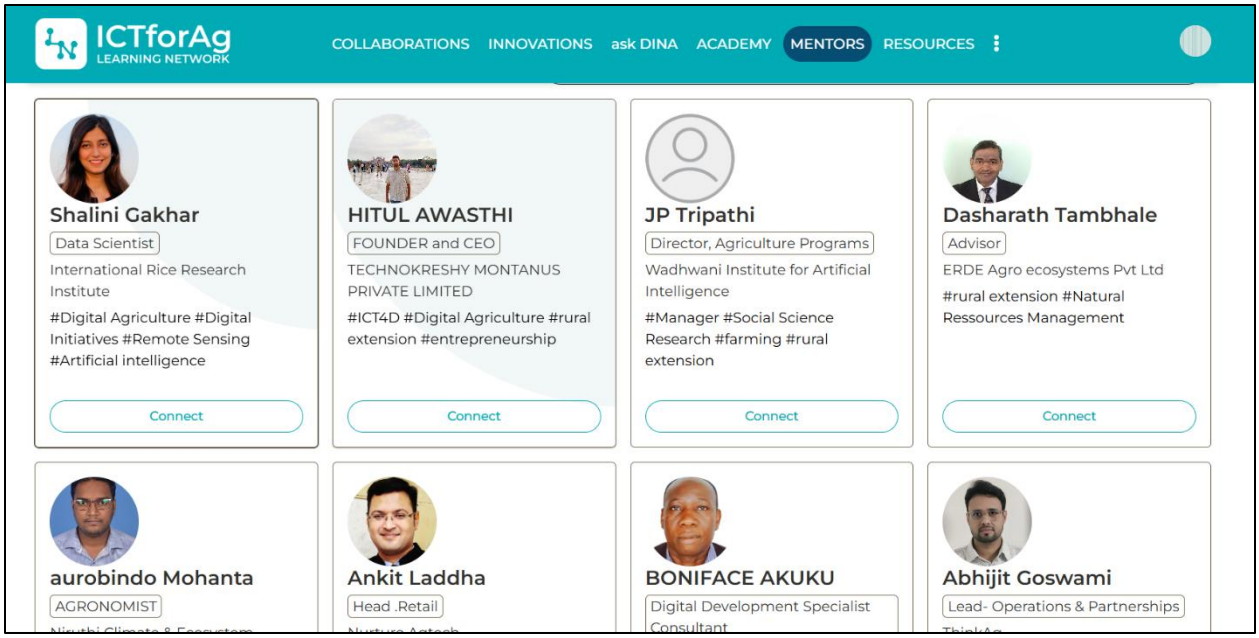

Figure 4: Mentors connect of ICTforAg Learning Network

7.1 Mentor recruitment during launch phases

During the initial soft and hard launch phases in March and April, the platform successfully onboarded 13 mentors. In May, the **ICTforAg Localizing Impact** event became a critical moment for mentor recruitment. Mentors were introduced to the platform during the event and subsequently followed up via email, resulting in additional mentors joining the platform. However, while mentors were present, technical challenges with the virtual call feature limited mentor-mentee interactions during this period.

In June, the **Mentor Speed Dating** event engaged 45 attendees (38% of 119 registrants) in virtual group mentoring sessions. This event aimed to foster connections and facilitate knowledge exchange between participants and seasoned industry professionals serving as Learning Network mentors, including:

- Berta Ortiz Crespo, User Research and Design Specialist, Alliance Bioversity CIAT
- Josh Woodard, Senior Digital Advisor, USAID
- Sagar Deshmukh, Assistant Professor, IIT Guwahati
- Shishir Ranjan, CEO, FARMISTO Group of Companies
- Sushree Satapathy, Senior Crop Modeling Specialist, IRRI

The event provided mentees and mentors with guidance on building strong mentoring relationships. A Mentor Mapping activity helped participants identify key existing or potential mentoring relationships and immediate steps to develop or enhance them. Additionally, participants viewed a live demonstration of the Learning Network's Mentors Connect platform and were encouraged to sign up for ongoing mentoring. Feedback from the event

was overwhelmingly positive, with mentors and mentees expressing enthusiasm for participating in similar events in the future.

7.2 Challenges in mentor-mentee engagement

Despite these efforts, challenges remain in increasing engagement on Mentors Connect. While some mentors are active, more consistent outreach is needed to encourage mentors to accept session requests and mentees to initiate contact. Currently, interaction between mentors and mentees on the platform remains limited, highlighting an area for improvement. Moving forward, focused efforts will aim to strengthen mentor-mentee connections and foster a more active and dynamic mentoring community.

7.3 Key takeaways

The ICTforAg Learning Network has demonstrated significant potential in fostering collaboration, knowledge sharing, and innovation within the digital agri-food systems. Key takeaways from this journey so far include:

- **Active moderation drives engagement**: Consistent engagement from moderators is essential to keeping users active and invested. In collaborative spaces, the presence of content calendars and clear strategies for interaction has proven valuable. Similarly, direct follow-ups with innovators and mentors have been critical to fostering participation.
- **In-person and structured virtual events generate momentum**: Events like Community Spotlight, Mentor Speed Dating, Innovation Showcase Lightning Talks, and the ICTforAg Localizing Impact sessions have shown the power of structured engagements. These events not only attract new users but also energize existing ones, encouraging them to explore and contribute more actively to the platform.
- **Technical challenges impact adoption**: Early technical issues, such as the delayed functionality of virtual call features in Mentors Connect, affected initial user engagement. Addressing these challenges promptly and communicating updates transparently is vital.

8. Digital Innovations Navigation Assistant

Digital Innovation Navigation Assistant (DINA) is an experimental Generative AI system leveraging OpenAI's GPT-3.5 API with a meticulously curated evidence database. This unique combination enables DINA to generate responses to queries by drawing upon a vast array of knowledge and information. Moreover, DINA enhances its responses by cross-referencing them with results obtained from Co-lab GPT, Public Chat GPT and Gemini, thereby enriching the quality and relevance of its output.

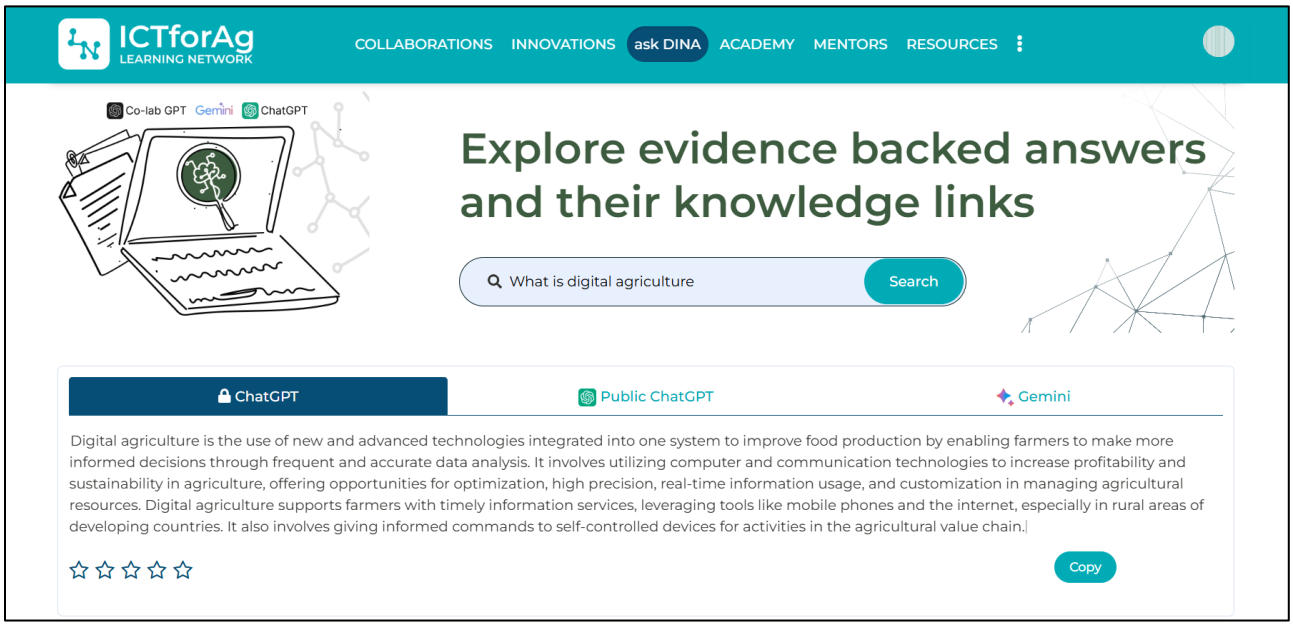

Figure 5: Digital Innovation Navigation Assistant (DINA of ICTforAg Learning Network

DINA receives an average of 54 search queries per month, reflecting the platform's active engagement and users' interest in specific topics related to digital innovation in agriculture. The following are the top three search queries by users:

1. Share evidence about Digital Innovation in agriculture in India.
2. What is aquaculture?
3. What are the challenges to implementing mobile applications in India?

These queries demonstrate the platform's role in addressing key areas of interest and challenges within the digital agri-food sector. As DINA continues to facilitate knowledge sharing and provide valuable insights, it is becoming an essential resource for users seeking to understand and navigate the evolving landscape of digital agriculture.

9. Way forward

The learnings and insights gained so far have proven to be incredibly valuable, highlighting many opportunities to grow and improve. Through the engagements we've had, the strategies that have proven effective, and the user feedback gathered over the past months, we now have a clearer sense of direction.

Our primary focus moving forward is to build upon these insights. This includes incorporating user feedback to add new features, enhancing the website with elements that improve user experience, and developing strategies to boost engagement further. Below are the ideas we plan to implement in the coming months:

- **Enhancing user experience**: Ensuring the platform remains user-friendly by continuously refining tools and functionalities of all the spaces.
- **Add a leaderboard to the platform:** This feature will recognize and incentivize active participation and meaningful engagement from members. By awarding points for contributions, it creates a motivating environment for members to collaborate and share knowledge with their peers in the digital agri-food systems. Every action - whether it's participating in discussions, initiating collaborations, or sharing resources - will be valued and recognized. As a result, members will be encouraged to engage more actively, strengthening the platform and driving progress in the transformation of digital agri-food systems.
- **Boosting engagement strategies**: Introducing proactive engagement techniques, such as automated prompts for mentors and mentees, regular activity highlights in collaborative spaces, and personalized content recommendations based on user interests.
- **Add an activity feed:** This feature will display updates about the users' collaborative space, such as new collaboration threads, posts, and discussions. It will also highlight new innovations, courses, mentors, digital public goods, resources, and RDI tools added to the platform. The feed will continuously showcase the latest additions, ensuring users are always informed about new developments.
- **Pin collaborations and courses on the website:** This will ensure that users easily notice and join relevant collaborations and courses, encouraging active participation and engagement.
- **Hosting regular events**: Increasing the frequency of structured events like innovation workshops, mentor sessions, and collaborative brainstorming activities to sustain user interest and foster meaningful connections.
- **Encouraging peer-led initiatives**: Empowering users to create and lead their own collaborations and initiatives within the platform, fostering a sense of ownership and community.

The ICTforAg Learning Network has made significant strides in fostering collaboration and knowledge exchange within the digital agri-food systems. By continuously adapting to user feedback and introducing new features, the platform is strengthening its role in driving innovation and engagement. With a clear vision for the future, the Learning Network is well-positioned to further enhance its impact, creating valuable opportunities for collaboration and sustainable development in the agri-food sector.