

Digital Green

Digital Green Annual Report

2024



By 2030, Digital Green plans to reach 60,000,000 small-scale farmers (50% women) by equipping and training a growing network of frontline workers and providing direct service to farmers. We will elevate farmers' voices to build a future in which small-scale farmers manage hundreds of millions of hectares sustainably, receive a more just income for their labor, and engage with markets with greater equity.

In FY 2024, we continued scaling, reaching a cumulative 6.3 million farmers in India, Kenya, and Ethiopia (53% women). At the same time, we developed and introduced a new AI Assistant, called Farmer.Chat, which builds on our FarmStack and digital video advisory work. Farmer.Chat will facilitate deeper system-level cost effectiveness and farmer outcomes that will enable our envisioned scale and results. Alongside our focus on new technologies and growth, we continued to provide excellent support to frontline workers, helping them assist farmers with more localized and actionable information that improved uptake of regenerative farming practices, and farm productivity and incomes.



In FY24, We Introduced an AI Assistant for Impact

Digital Green has harnessed the power of generative AI to further personalize the advisory farmers can access and share with one another. Our domain-specific AI assistant is trained on scientifically vetted content—including 8,000+ community videos—and integrated with dynamic weather, soil, and market data to ensure the quality of the agricultural advice it shares.

Push notifications deliver timely, climate-smart advisories, such as pest management warnings, fertilizer optimization, and water management recommendations. The interface is simple and conversational, enabling frontline workers and farmers to ask questions and address pressing concerns quickly and intuitively. This model cost-effectively amplifies context-specific advisory delivery, unlike conventional models, which are largely top-down, generic, and costly.

Our AI assistant is designed to be used by small-scale farmers regardless of income, language, digital literacy, or gender. While some farmers will use it themselves, others will continue to access advisory information via public, non-profit, or private extension providers. Our work to build foundational AI tools and governance frameworks is shaping a future where all farmers can access critical information, and stakeholders can deliver timely advisory to address climate and inclusion goals.

EXPONENTIAL USER GROWTH AND NECESSARY LEARNING

To achieve that future, our AI Assistant must deliver a compelling and intuitive user interface, built on a first-of-its-kind agricultural LLM so that farmers and frontline workers can use it easily and comfortably. In FY24, we took great strides in testing and refining our approach to both of these aspects, and trained 9,800 field-level extension agents and lead farmers in India, Nigeria, and Kenya who have used the AI Assistant to ask a combined total of more than 200,000 queries in local languages.

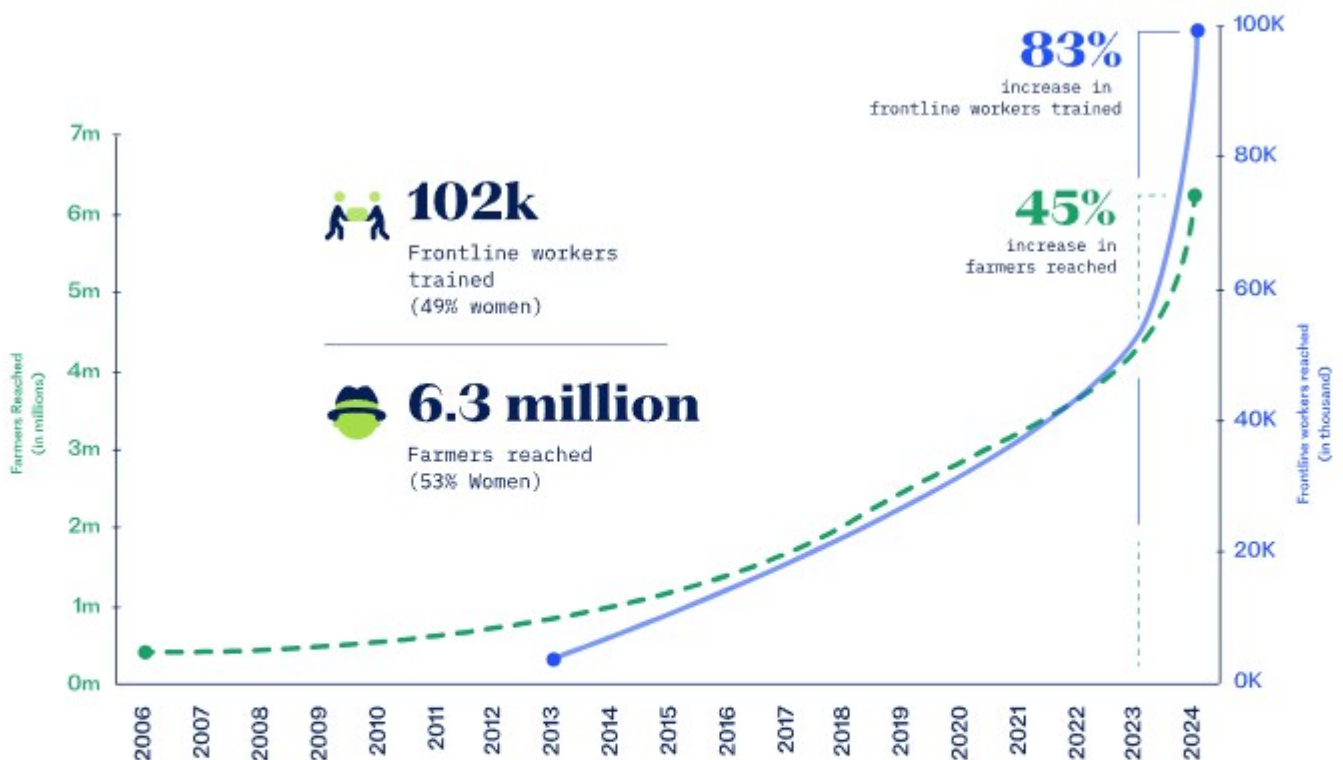
A rapid expansion of users and the emergence of super users in the last quarter illustrate the success of our pilots, which have informed improvements to the user interface. The changes we have incorporated have dramatically increased user retention in India (from 40% in January to 83% in February and 96% in April); and successful response rates (from 80% in January to 98% in April). Inquiries from users to the Assistant are most often about pests/diseases, varieties of crops for planting, sowing techniques, and fertilizers to use and how to use them.

In a recent third-party evaluation, 57% of users of the Assistant report an improved quality of life within 45 days of incorporating the Assistant into their farm management with no disparity or gap apparent between genders. We will continue to test and iterate product design enhancements in order to drive use by more agents to produce greater farmer-level results.



Key Progress Indicators and FY24 Highlights

- Reached a cumulative total of **6.3 million** (53% women) small-scale farmers since 2008.
- **89% of farmers** (73% women) surveyed in India and **44% in Ethiopia** (40% women) adopted at least one new practice.
- Trained a cumulative total of **102,000 (49% women)** frontline extension workers to use our advisory tools since 2008.
- As part of our climate-smart agriculture focus, **50,000 Ethiopian farmers received location-specific fertilizer recommendations rather than generic recommendations and enjoyed 17% higher yields** than those following the generalized national-level recommendations.
- We promoted agroforestry practices and contributed to the **restoration of approximately 900 hectares of forests in Ethiopia**
- Digital Green's model is cost-effective: the additional farmer profit is about **16 times greater** than the cost of implementing it.



FY24 Evidence & Learning

Results from a randomized control trial in Bihar (2014–16) were published in the June 2024 [Journal of Development Economics](#), a top-tier journal in the field of development economics. The authors compared the effectiveness of Digital Green's community video advisory approach layered on traditional extension to promote the System of Rice Intensification, a set of climate-smart techniques for rice production. Using different statistical techniques to validate the results, they find that community video combined with complementary messages leads to 18–22% increase in yields and up to 24% increase in farmers' profits relative to traditional extension.

Third-party endline evaluations of two inter-related projects that focused on improving the quality of chili production and market sales in Andhra Pradesh and Telangana (2023) show multiple benefits culminating in improved net profits as summarized below.

Assessment Details	Key Takeaways
<p>Endline project evaluation</p> <p>Telangana, India</p> <p>Impact Partners for Social Development</p> <p>Quasi-experimental impact evaluation</p>	<ul style="list-style-type: none"> • 100% of participating farmers adopted promoted practices compared to 3% in the control group; on average, farmers adopted 5 of the 13 promoted practices. • More than 50% of participating farmers used soil testing services, which improved fertilizer use efficiency and yields. As a result, productivity increased by 234 kg/acre (15%). • The use of chili quality testing services and an online marketing platform resulted in significant economic benefits for chili producers relative to control areas, with an average 61,00 INR/acre increase in profit (18% increase).
<p>Endline project evaluation</p> <p>Andhra Pradesh, India</p> <p>Impact Partners for Social Development</p> <p>Mixed methods assessment</p> <p>Compares 2022–23 cropping season to the two previous seasons</p>	<ul style="list-style-type: none"> • 98% of participating farmers adopted at least one promoted practice. • In 2022–23 net profit of chili growing farmers from target areas was 2.4 times (242%) their total investment, compared to 23% of investment in 2020–21 and 12% in 2021–22. The substantial increase is attributed to: using more land to cultivate chili (3.2 acres per farmer compared to 2.4 in 2021–22); with no thrips infestation (compared to the previous season), there was no crop loss; farmers invested 35% less than the previous year in pesticides for disease control; by adopting advisories, farmers increased production to 1845 kg/acre from 744 kg/acre (2020–21); adoption of higher numbers of practices is positively correlated with chili production levels; the chili market price was about 25% higher than in the previous cropping cycle; and by selling produce through the e-commerce project partner, farmers obtained higher prices (INR 12 higher than the market price) and saved approximately 25% on post-harvest management costs. • 4 out of 5 farmers believed that adopting advisories helped them to obtain better prices due to organic production, better information about their crops (from the quality assay information), and improved negotiation with buyers and traders.

Systems, Governance & People

HUMAN RESOURCES

Digital Green strategically grew our workforce in FY24 from 155 to 190 globally. We invested in our operations and business development teams to help support our ongoing impact at the current scale, which has grown significantly, and to prepare for our envisioned growth. In addition, our product team also grew with new appointments in India and Africa to support the AI Assistant's development and deployment with our field partners.

In FY24, Digital Green introduced a new "Career Architecture" structure, strengthening many important personnel functions like performance reviews, opportunities for advancement, professional education and development, and compensation structures. As a result, team members gave the organization high marks for transparency and positive workplace experiences. Not surprisingly, attrition in FY24 was lower than in the prior two years.

The organization made several key hires in FY24:

- Our operations teams brought key financial, legal and recruitment functions in-house with key hires that include: Edna Bartolome VP of Finance, Christina Casagrande, General Counsel and Director of Legal, and Samarra Abuhouran, Global Head of Talent & Growth.
- We have expanded the business development team with three new roles. Ryan Owen joined as VP of Business Development, a new role created to grow and diversify our funding base, particularly by increasing unrestricted giving from new sources; and Matewous Bogale and Hilda Odera joined as Head of Business Development and Communications in Ethiopia and Kenya, respectively. These new roles will foster relationships with potential partners and donors in-country to source new funding opportunities.
- The product team has been growing under the leadership of Chief Product Officer, John Collery, including hiring key new team members Swathi Ravishankar, Head of Product in India, and Nereah Okanga, Director of Product for East Africa.

Departures. Krishnan Pallassana, the Managing Director for India, transitioned from Digital Green at the end of October. Recruitment to fill this role is continuing.

LEGAL & GOVERNANCE

Two legal shifts have taken effect, reflecting our evolution and growth

- In response to the regulatory framework in India, Digital Green officially launched the newly formed subsidiary in India, Digital Green Private Limited ("DGPL"), to implement product development across all of our presence and non-presence countries.
- In May, Digital Green completed steps to establish operations in Kenya following our registration approval in October.

Reflecting the significant evolution in the composition of the board of directors over the last two years, we have been working with the board to review bylaws and ways in which the board and organizational leadership work together. This work will continue over the next few months as we finalize any bylaw amendments and clarify terms of reference.

This year we welcomed three new board members:

- Katherine Woo, a tech for social impact leader who has served as executive director of Airbnb.org, director of project management at Facebook, and chief product officer at Kiva.
- Susan Kaaria is the director of African Women in Agricultural Research and Development (AWARD) and brings deep expertise in gender issues.
- Elizabeth Wong, the National Director of Philanthropic Advisory Services at Foundation Source. She has more than 25 years of experience in the philanthropic sector with a focus on donor communication and fundraising.

Additionally, a board leadership transition took effect in April: We extend our deepest appreciation and heartfelt gratitude to Melissa Ho, our former Board Chair, and welcome Deepali Khanna, our new Board Chair, and Adam Wolf, our new Board Vice Chair.

Advocates for International Development, a global charity that connects NGOs with the world's leading law firms for pro bono assistance, has connected us to two legal teams that are completing data governance work. Morrison & Forester is supporting a comprehensive data governance project, ensuring that our data practices align with the highest standards of ethical conduct and legal compliance. Latham & Watkins is revamping the Terms of Use for our chatbot and website. This collaboration aims to reduce legal risk and fortify legal compliance.

FINANCE & OPERATIONS

We changed our investment and reserve policies to focus more on shorter-term cash needs and remove equity investments. Working with our investment managers, we converted to a new fixed-income investment approach in January.

We have revamped internal financial reports to increase their accuracy and reduce the time needed to produce financial data for decision-making each month. However, our financial systems have struggled to keep pace with the organization's significant operational volume growth and complexity over the past three years, leading to heavy reliance on manual workarounds that are no longer sustainable. To address this challenge, the finance team has developed a plan to upgrade to a more integrated and scalable system that will automate many workflows and eliminate the need for most spreadsheets. We began the software selection process after finalizing the plan in April 2024. Implementation of the new system is expected to be completed by Q3 of the current fiscal year.

We completed a file migration from Box to Google Drive, and are in the process of setting up an intranet on Google Sites, to make it easier for staff to find and share key resources, communicate updates, and connect with others across the organization.

We launched an AI Upskilling Working Group, a cross-departmental collaboration providing training and guidance for staff on how to use Generative AI effectively and responsibly. The group conducted an organizational survey to gauge staff usage, interest, and concerns, and is hosting a series of peer-led training sessions. Development of an AI usage policy is underway. We also reviewed our SaaS tool usage and spend, and began work to streamline it without compromising productivity.







NEW FUNDING

In FY24, we received \$10,350,000 in new funding and funding commitments from 12 donors. We ended the fiscal year with 10 awards totaling \$3.4 million pending final subaward agreements or with a high probability of award.

Unrestricted donor renewals		
Jasmine Social Investments	\$500,000	
Matching funds	\$500,000	
Mulago Foundation tranche 2	\$250,000	
Restricted funding - Renewing and existing donors		
Bill & Melinda Gates Foundation	\$1,500,000 / 2 years	AI-based crop assessments & secure data exchange to deliver timely, high-quality advisory messages, cost savings and better sale prices for small-scale chili producers in Andhra Pradesh and Telangana
Walmart Foundation	\$3,000,000 / 2 years	Advance development of 50 farmer producer organizations in 5 states in India
FAO	\$50,000 / 2 months	Digital ag innovation hubs, Ethiopia
GIZ / BMGF	\$400,000 / 1 year	AI chatbot development - India & Kenya
Restricted funding - New donors		
HereWeGrow	\$3,300,000 / 4 years	Increase incomes of coffee producers, Ethiopia
Oak Foundation	\$300,000 / 2 years	Increase climate resilience of farmer producer organization in Odisha, India
GitLab Foundation	\$350,000 / 1 year	AI chatbot development - Kenya
Open AI	\$100,000 / 1 year	AI chatbot development - Kenya. In addition to funding, award includes \$10,000 in OpenAI API credits and access to no-cost technical guidance
Schmidt Family Foundation 11th Hour Project	\$100,000 / 1 year	AI chatbot development - India

Key Progress Indicators (April 2023 – March 2024)

These indicators capture progress made through all Digital Green projects in our largest geographies between April 2023 – March 2024

Indicator	 India	 Ethiopia	 Kenya	 Nigeria	Total
Reach – No. of small-scale farmers reached with advisories	1,465,909 (73% are women)	756,608 (35% are women)	48,000 (estimated)	56,659 (46% are women)	2,327,176 (58% are women)
Adoption – % of participants who adopt at least one promoted practice	89% (based on project surveys)	44% (40% are women)	N/A	N/A	71% (66% are women)
Number of frontline workers trained in use Digital Green extension tools and approaches	19,438 (51% are women)	3,013 (24% are women)	4,800 (46% are women)	291 (65% are women)	27,524 (47% are women)

Looking Ahead to FY25

In the next year, we plan to:

- Achieve adoption rates of 50% (participants who adopt at least one promoted practice)
- Reach ROI of more than \$590 million in additional annual income for farmers by combining access to advisory information with farmer group strengthening and input and offtake aggregation; and focusing on three climate-smart practices for high-value commodities (feed ration optimization for dairy producers and fertilizer optimization and irrigation management for paddy and wheat).
- Improve advisory content contextualization and respond to demand for information by integrating access to local weather and market price information and rolling out features that allow frontline workers to view assigned tasks for message dissemination and to report the number of farmers reached with messages and intent to adopt promoted practices in the Assistant.

FY25 ROI VISION



Financial Statement (Unaudited)

Note: FY2024 numbers presented in this statement are unaudited and subject to change

P&L Statement

Income	as of 3/24/2024
Revenue	12,156,860
Total Income	12,156,860
Expenses	
Direct Costs	
Personnel & Fringe Benefits	4,602,630
Travel	774,503
Consultants	549,192
Subawards	3,813,186
Other Direct Costs	1,855,208
Total Direct costs	11,594,718
Indirect Costs	
Overhead	3,262,433
Total Indirect costs	3,262,433
Total Expense	14,857,151
Net Income	-2,700,291

Balance Sheet

Current Assets	as of 3/24/2024
Cash & Cash Equivalents	2,527,257
Investments Accounts	12,108,496
Other Receivables & Advances	4,832,081
Total Current Assets	19,467,834
Fixed Assets	7,676
Total Assets	19,475,510
Current Liabilities	
Liabilities (AP & accrued liability)	1,445,160
Refundable Advances	446,501
Loans	-
Total Liabilities	1,891,661
Net Assets	
Restricted Net Assets	7,295,615
Unrestricted Net Assets*	10,288,234
Total Net Assets	17,583,849
Total Liabilities & Net Assets	19,475,510
Reserve Requirement	4,760,000
Unrestricted Net Assets*	5,528,234