

Google and nurture.farm announce research collaboration towards solutions to scale soil quality measurement in India

- **The research collaboration will work toward identifying scalable and affordable methods for soil quality measurement across farmland in India.**
- **The project aspires to create an India-wide map of soil organic carbon (SOC) and other vital nutrients through remote sensing and measurement methods.**

New Delhi, 22 April 2022: Google and nurture.farm have announced a research collaboration to identify scalable and cost-effective solutions for soil quality measurement across farmland in India. The relationship aims to enable farmers with informed decisions that improve their yield and profitability in their practices across the seasons. Combining Google's cutting-edge AI, imaging technologies and Cloud infrastructure, and nurture.farm's direct on-ground reach and engagement with millions of farmers in India, the two companies have outlined multiple areas of research collaboration that will enable and accelerate the adoption of sustainable agricultural practices across the country.

Soil health is well understood to be a primary indicator of crop yield and productivity. Today, soil quality testing is primarily done using chemical-based analysis, where soil samples are collected and analysed in a laboratory. Due to limited testing facilities, lower awareness among farmers, and the logistical and operational overhead introduced by collecting and transporting samples to testing facilities, this lab-based soil-testing approach has been challenging to scale across India.

nurture.farm and Google have entered into a research collaboration to establish a scalable and low-cost method to measure soil health, covering soil organic carbon and other key nutrients in soil. The relationship will focus on the use of hyperspectral image analysis combined with other remote sensing and data collection methods, to accurately measure SOC and other nutrients in soil across a range of soil types and characteristics that comprise the landscape of agricultural practices in India. This method of soil testing, once established in a scalable manner, will help extend soil testing services at affordable costs to farmers across India, and guide them towards ways to improve soil health, select suitable crops, input products and operating practices, resulting in higher yields and income.

Speaking about the collaboration, Pranav Tiwari, CTO, nurture.farm said, "At nurture.farm, our objective is to bring advanced and innovative technology-led solutions to ease the decision-making process and improve outcomes for farmers, with a focus on smallholder farmers of India. With this collaboration with Google, we are working together to develop a scalable, real-time and cost-effective method to measure soil quality. Once developed, we will be able to provide actionable insights and advice to farmers and help them optimise their choices of crops, seeds, and nutrients. This will not only benefit the farmers with a better ROI, but will also help promote practices that make farming, and our planet, more sustainable."

Speaking about this research association, Dr. Manish Gupta, Director, Google Research, said, "We look forward to our collaboration with nurture.farm, utilising Google's suite of AI and imaging technologies, Cloud, and advanced geospatial analysis and machine learning expertise to help unearth long-term solutions for sustainable agriculture. Using remote measurement of soil health can help deliver orders of magnitude gains in cost-effectiveness and scalability that will directly benefit farmers across the country, enabling them to improve their productivity and meet the challenges of the future."

Agricultural development is one of the most effective tools to help end extreme poverty, enable shared prosperity, and feed a projected 9.7 billion people¹ by 2050. This research project has the potential to empower farmers with quick, affordable, and scalable soil health measurement, helping them make informed decisions that result in higher yields, and better farm and environmental outcomes. The project builds on a broader collaboration underway between Google and nurture.farm, and aims to deliver widespread outcomes for sustainable agricultural practices across the country.

About nurture.farm

nurture.farm, India's leading Ag-Tech open digital platform brings what every farmer needs to thrive, together in one place—technology, information, services, solutions, finance, community. Its ecosystem reaches across the food system, expanding choice for customers – making access transparent, affordable and convenient for everyone. This way nurture.farm lessens uncertainty, helping farmers secure sustainable outcomes. The nurture.farm digital platform, launched in April 2020, has over 1.5 million farmers onboard. The nurture.retail platform, a B2B e-commerce marketplace for agri-inputs, has also scaled significantly in over 13 states and has 80,000 registered agri-input retailers from across India. To carry its ground level operations, nurture.farm has built India's first and largest rural gig-economy platform with over 10,000 field partners in over 10 states.

About Google

Google's mission is to organize the world's information and make it universally accessible and useful. Through products and platforms like Search, Maps, Gmail, Android, Google Play, Chrome and YouTube, Google plays a meaningful role in the daily lives of billions of people and has become one of the most widely-known companies in the world. Google is a subsidiary of Alphabet Inc.

For More Information Contact:

Elizabeth Thomas | +91 9784989808
nurture.farm - Corporate Communications

¹ Source: [World Bank](#)