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# **F** FOOD & BEVERAGE TECHNOLOGY REVIEW

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 **Food SaFety  
Tech Edition**

Dr. Venkat Maroju,  
CEO

## **SourceTrace** ARCHITECTS OF NEW-AGE SUSTAINABLE AGRICULTURE

\$ 15



# COVER STORY



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CEO

# SourceTrace

## ARCHITECTS OF NEW-AGE SUSTAINABLE AGRICULTURE

By Kevin Lobo

**A** great vision alone is not enough. Only when combined with action does it hold the power to change the world. The story behind Dr. Venkat Maraju's journey and SourceTrace follows a similar trail. From humble beginnings in the hinterlands of Telangana, once considered a backward region in the southern part of India, Maraju's studied at prestigious universities like Massachusetts Institute of Technology and held leadership roles at audio giants like Bose Corporation.

Maraju was still at unrest. Back in Telangana, farmer suicides had increased at an unprecedented rate, leading to a political struggle for statehood for Telangana region. Maraju became a very active member of this struggle for more than a decade starting in 2000. He was in search of doing something to impact the farmers in developing economies.

To do his part in making a difference, when he got the opportunity to lead SourceTrace, a pioneer in remote transactions primarily focused on door step banking in developing economies, he transformed it into a digital agriculture platform for supporting sustainable agriculture and empowering farmers.

With Maraju's passion for grassroots development and SourceTrace's state-of-the-art digital solutions that promote smart agriculture and traceability, the company

is not only making a significant social impact but also turning the tide in food and agriculture technology. "Differing from most industries that consider the smallest stakeholder as the last mile, in agriculture, small-scale farmers are the first mile—this is where SourceTrace focuses," begins Maraju, CEO of SourceTrace.

Although agriculture as a sector is indispensable to human sustenance, to date, this field has witnessed minimal technological advancements. SourceTrace is all set to change that. Today, the company is a global leader in digital, data-driven solutions that promote traceability and predictability of agriculture in a sustainable manner. All of SourceTrace's solutions are targeted at making the agriculture value chain more transparent and equitable for everyone, right from the farmers and suppliers to retailers and consumers. Over the years, SourceTrace has reached over a million farmers in 27 countries across three continents, and "that is just the beginning of the agricultural revolution we wish to usher," says Maraju.

### Digitizing the Agriculture Value Chain

To set this revolution into motion, SourceTrace's newly released DATAGREEN platform with advanced remote sensing, AI/ML, and blockchain technologies is designed to empower farmers, agribusinesses, government agencies, financial institutions, and development

agencies. Although the platform comprises multiple modules such as farm and supply chain change management, monitoring and evaluation of agriculture projects, and market linkage, the application that stands out is traceability. The traceability module ensures that the end-consumers have complete visibility to the intricate details of a product belonging to different value chains—both fresh produce and cash crops such as coffee and cocoa. All a consumer needs to do is scan the QR code on an item, and they can instantly access a wide range of information, including the name of the farmer, time of harvest, farming certification, and type of farm or forestland it was cultivated in. Currently, SourceTrace is working on a feature through which users can attain a detailed view of the farmer, including their photograph and the GPS location of the farm. The solution also shows the different procedures that the food product has gone through before reaching the shelves of a retail store.

Coming to farmers, the SourceTrace DATA GREEN platform digitizes the entire farm management process. At every step, farmers are continuously provided with essential information such as sowing date, yield estimation, soil health, and more. If need be, crops are also inspected for pests and diseases periodically. Another notable offering is the farmer advisory service. Besides farming management information, the company sends advisory audio and text messages based on

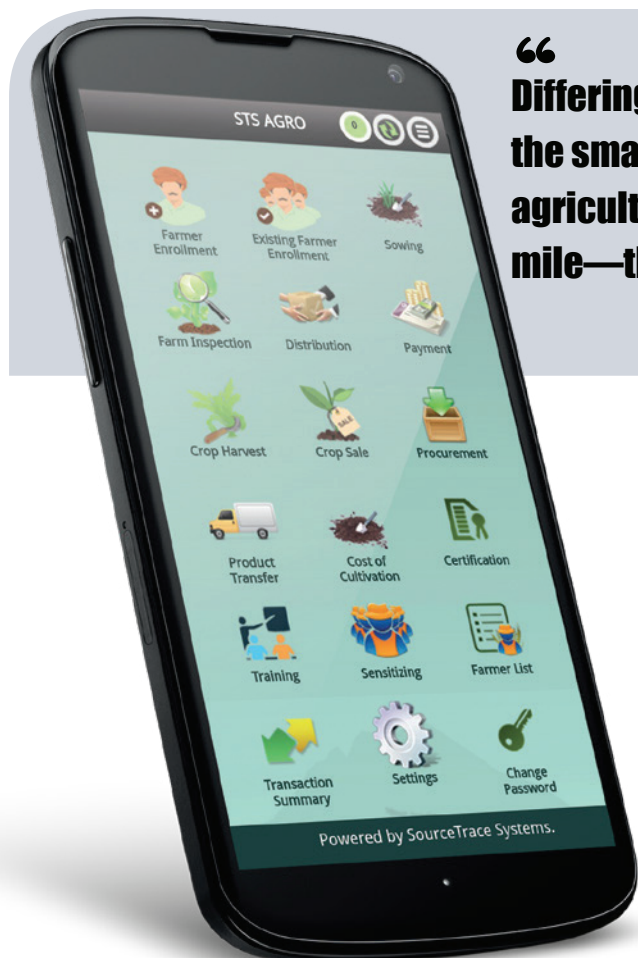
weather forecasts, market prices, the addition of any new technology, and so forth. “Although these features primarily focus on agriculture, our solution also supports the first mile farmers in aquaculture, plantation, and forestry,” informs Maroju. Currently, SourceTrace manages 2.4 million hectares of land, digitized under their system.

With the SourceTrace DATA GREEN platform, farmer organizations can also create and maintain a digital internal control system (ICS) for the certification process and compliance, and keep track of non-conformities, related corrective action plans, and follow-up actions. If an organization wants to put the following stamps—UTZ/Rainforest, Fairtrade, or Global GAP—on a product, SourceTrace even offers ready-to-use certification templates. Figuratively, this solution has helped over 220,000 smallholder cocoa producers in Cote d’Ivoire, Ghana, and Cameroon release UTZ/Rainforest Alliance and Fairtrade certified products. For those farmer groups and producer companies that are looking for a cutting-edge financial services solution, SourceTrace has that covered as well. The DATA GREEN platform digitizes all financial transactions between farmer organizations and farmers and so provides transparency and accuracy when extending credit loans. Farmer groups can now easily assess farmers’ creditworthiness and minimize the risks involved in issuing crop loans.

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### **Empowering Every Agricultural Stakeholder**

Apart from farmers, the solution is also a boon for retailers, allowing them to be confident of day-to-day processes as well as the authenticity of produce. Imagine the power of SourceTrace DATA GREEN in case of a product recall, where, due to safety issues or product defects, a particular item has to be removed from the market. Previously, tracking down such products was a challenging task, but now with SourceTrace, retailers can easily trace goods as they always have the right information at their fingertips. “Our solutions are designed to eliminate any possibility of food contamination. But in case a mishap does occur, our digital innovations help minimize the impact altogether,” states Maroju.



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In addition, the solution also helps manufacturers, distributors, and retailers stay compliant with FDA's Food Safety Modernization Act (FSMA), the regulation that controls the way crops are grown, harvested, and processed. Given the recent spike in food hazards and foodborne illnesses, the FSMA has put forth several produce safety and transportation standards alongside new methods of inspection, which organizations must meet. "With a complete record of all the processes that a food item has gone through before sale, organizations are up to date with the mandates, and the FDA gets access to the end-to-end record of a product," adds Maraju.


Lastly, the supply chain management module provides suppliers with complete visibility of the supply chain, all the way from the farm to the retail outlet, on a real-time basis. The entire process of procurement is digitized, and the current location of produce can be tracked on GPS. Moreover, the solution is compatible with digital payment systems, which enables faster and accurate payment to farmers.

## A Holistic Approach for Agricultural Progress

SourceTrace's association with a farmer group producing organic vegetables best exemplifies the solution provider's prowess. The implementation of SourceTrace's DATA GREEN solution not only streamlined the internal inspections for the certification process, inputs management, and loan management but also provided end-to-end traceability of the fresh fruits and vegetables supplied to retail stores. QR based traceability solution allowed the end-consumers to find out

who, where, and how the food was produced. This level of radical transparency enabled the guaranteed market and also a premium pricing to the farmers.

Given their one-of-a-kind value proposition, it comes as no surprise that SourceTrace is backed by the 'who's who' of the social venture world. The company is a part of The Soros Economic Development Fund (SEDF) of prominent investor and philanthropist George Soros. They have also received investments from The Schmidt Family Foundation" of Eric Schmidt, former CEO and executive chairman of Google; and Barbara Fiorito, former chairperson of Fairtrade International, an NGO focused on the empowerment of producers and workers in developing countries through trade.

Moving ahead, team SourceTrace aims to up their momentum by reaching at least 10 million farmers over the next three years and improving the end-to-end food value chain, especially on the retail front. Efforts are also in full swing to enhance the DATA GREEN platform. For instance, the company is implementing their traceability module onto the blockchain to increase the credibility of data and build more trust in the supply chain. They are also experimenting with AI, ML, remote sensing, and data analytics to ensure that their solutions represent nothing but the best in the market. On a concluding note, Maraju mentions, "When SourceTrace was founded in 2013 it wasn't an easy journey. Today, however, the tables have turned. We are receiving more traction and recognition with each passing year, and SourceTrace is all set to create an even bigger social and commercial impact in the coming days." 

# **FOOD & BEVERAGE** TECHNOLOGY REVIEW

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**Company:**  
SourceTrace

**Description:**

A food safety solution provider that helps consumers track the food's harvest and processing history, while supporting farmers provide the same

**Key Person:**  
Dr. Venkat Maroju  
CEO

**Website:**  
[sourcetrace.com](http://sourcetrace.com)

## Top 10 Food Safety Tech Solution Providers - 2019

Consumers today ideally expect to know their food sources and the ingredients of edible products available at the store to get a clearer picture of the degree of contamination. Governmental agencies today are also quite stringent against violation of food safety norms to curb the adulteration menace. Thus, owing to the rising concerns of contamination worldwide, organizations exclusively focused on food safety are leaving no stone unturned to ensure food & beverage enterprises abide by the benchmarks. In the current climate, technology adoption to scale higher standards of food safety has become imperative for organizations across the globe. Many technological innovations have permeated into the food & beverage space already and have become trends.

QR codes, for instance, are giving consumers the ability to scan and link to web pages with detailed information ranging from how the ingredients are procured from their sources to the final stages of packaging and labeling.

Blockchain technology empowers organizations by offering them the ability to record and secure arbitrary and disparate kinds of data. Food safety is poised to benefit from this new method of data management. Advances in networking, storage, and processing have created a mass market for sensors delivering real-time data from across the food supply chain.

Technology is elevating food safety practices and protocols and will help reduce or eliminate food safety incidents and outbreaks in the future. Investing in technology is something that all food businesses should do to help boost the health and safety of their establishments. To help CIOs identify potential partners, a distinguished panel comprising of CEOs, CIOs, analysts, as well as Food and Beverages Tech Review's editorial board, has assessed and shortlisted some of the most promising vendor organizations in the industry today. We present to you – "Top 10 Food Safety Tech Solution Providers – 2019".