

Success story: Digital tools bring bioprotection to Indian farmers

CABI BioProtection Portal and CSA empower Indian farmers to embrace bioprotection



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Image: Enjetti Hussainamma, an organic chilli grower, harvesting chillies. Copyright: CSA

Overview

Who		Where	
Smallholder farmers supported by the Centre of Sustainable Agriculture and CABI		India	
Highlights			
<ul style="list-style-type: none">• Farmers in India faced persistent pest attacks and high pesticide costs.• The Centre for Sustainable Agriculture (CSA) partnered with CABI to introduce farmers to the CABI BioProtection Portal and other digital tools.• Access to locally tailored, easy-to-understand information in regional languages helped farmers confidently adopt bioprotection.• Farmers reported reduced input costs, improved crop quality, and higher yields as a result of integrating biocontrol into their practices.			

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Agriculture is the backbone of rural livelihoods in India. Yet, many farmers suffer significant crop losses due to pests, often heightened by over-reliance on chemical pesticides and a lack of timely information. Enjetti Hussainamma, a local organic grower states: “We have been growing chillies for many years. Despite using chemical pesticides, the pest attacks on our crops continued.”

The [Centre for Sustainable Agriculture](#) (CSA), an Indian NGO working to make agriculture more ecologically and economically sustainable, teamed up with CABI to address these challenges. The goal: help farmers access safe, science-based solutions through easy-to-use digital tools.

Enter the CABI BioProtection Portal

As part of this partnership, farmers and field staff were introduced to the CABI BioProtection Portal, the world's largest free resource for biological pest management. The Portal gives users a searchable directory of registered biocontrol and biopesticide products, available in English and multiple local languages.

Many took action immediately. “After attending a meeting organized by CSA about the CABI digital tools, I started using the BioProtection Portal,” said Enjeti Babu, another organic farmer. “It helps me spray biological sprays suggested by the app.”

By providing information in Telugu and offering access via mobile phones, the Portal bridged the gap in advisory services, ensuring farmers could make informed decisions at the field level.

CSA's role in driving adoption

Since 2004, CSA has promoted non-pesticidal management and organic farming across India. However, traditional biocontrol preparation methods were often time-consuming and not scalable. K Adinarayana, Program Coordinator at CSA, explained, "The reality is that preparing these botanicals is time-consuming and labour-intensive. Farmers find it challenging due to the lengthy process and sometimes limited availability of resources."

Digital tools from CABI presented a scalable solution. CSA trained farmers and field staff, supported app installation, and spread awareness of registered biological inputs like *Trichoderma* and *Pseudomonas*. Farmers quickly adopted the tools, appreciating the easy access to trusted guidance.

"Now, with easy access to information, both existing and new farmers are adopting sustainable farming practices, reducing production costs, and achieving better yields. Our farmers are happy with CABI tools." - K Adinarayana



K Adinarayana, Program Coordinator at CSA, Copyright: CSA

Real-world results

One standout success story is Hussainamma, a chilli farmer who transitioned from relying on peer-based advice and chemical spraying to digital, data-driven decision-making:

"Every year, we used to harvest no more than 20 bags of chillies. But this year we harvested around 70–80 bags across 8 rounds of harvesting."

With improved crop quality and the confidence to act independently, farmers like Hussainamma are now championing the new approach, communicating its benefits to their communities.

Providing real-world value

Both CSA and CABI are committed to empowering those who feed the world. The partnership showcases the transformative power of collaboration and technology in rural agriculture. With this support, Indian farmers are reducing chemical inputs, protecting their health and land, and embracing a future rooted in bioprotection.

“After using these CABI digital tools, I now confidently use the available information without fear or reliance on others,” Hussainamma added. “I feel happy and satisfied. My fellow farmers often ask about my successful practices, and I have encouraged them to confidently use these digital tools.”



Enjetti Hussainamma, organic chilli farmer. Copyright: CSA

About the CABI BioProtection Portal

The CABI BioProtection Portal is the largest, free global resource for biological pest management. The Portal's mission is to raise awareness and encourage the adoption of bioprotection among growers and advisors. It offers a comprehensive, searchable directory of nationally registered biocontrol and biopesticide crop protection products, along with detailed guidance to help agricultural advisors and growers source and effectively incorporate these sustainable natural products into integrated pest management programmes.