ISSCA

Scalable Technology and Innovations



Solution:

Seed Traceability, Authentication and Holistic Inventory (SATHI) portal

Submitter: (Deptt of Agriculture & Farmers Welfare (DA&FW)

Solution Overview

What is it, and what problem does it solve? Brief 2–3 sentence description.

Answer:

The Seed Traceability, Authentication & Holistic Inventory (SATHI) portal is a national digital platform that records every seed lot's journey—from breeder, through processors and dealers, to the final buyer—using QR/bar-code tagging and realtime inventory updates. By exposing this data online and via a mobile app, SATHI tackles the chronic problem of counterfeit or sub-standard seed, giving farmers, companies and regulators an instant way to verify provenance and quality. When linked with Agri Stack's verified farmer and crop registries, each tagged seed lot can also be mapped to the exact fields where it is sown, completing a trusted, end-to-end chain between certified seed and on-farm performance.

Key Features & Benefits

Main components and why it is useful? Bullet points summarizing methods, tools, and value added.

Answer:

- QR-coded seed packets: Every certified pack carries a unique QR code; a quick scan shows the seed's origin, grower, test results and certification agency, letting farmers instantly check authenticity at the point of purchase.
- End-to-end traceability with real-time monitoring: Automation of breeder-seed indents, allocations and lifting, plus live dashboards of demand and supply, ensure timely movement of quality seed and faster response to shortages.
- Robust inventory and quality controls: The portal blocks damaged or non-conforming lots, reconciles stock counts automatically and generates compliance reports, tightening

oversight across producers, distributors and retailers.

Where It Works and Where It Can Work

Existing and potential target regions, agroecologies, or farming systems. Include examples if available.

Answer:

The SATHI portal has already been rolled out in the country's main seed belts: eight large producing states came on-board for the Kharif 2024 season, and 16 states are now integrated into the national seed grid, with 5,600-plus producing agencies and more than 75,000 registered seed growers. Since the portal draws verified Farmer IDs and georeferenced land parcels from Agri Stack, any remaining state can connect simply by mapping its local seed-certification data to the open APIs, making nationwide expansion both rapid and low-cost.

(Source: Informatics)

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Evidence & Impact

What results has it shown? Stats, pilot outcomes, or testimonials.

Answer:

- The use of QR-coded seed packets has enabled farmers and regulators to instantly verify seed authenticity at the point of sale, reducing counterfeit and substandard seed incidents.
- Real-time tracking of seed production, certification, and movement has improved supply chain efficiency, ensuring timely availability of quality seeds to farmers.
- By linking seed sales to verified Farmer IDs and geo-referenced land parcels via Agri Stack, the portal facilitates direct benefit transfers, ensuring subsidies reach the intended beneficiaries transparently and promptly.

Scalability & Adoption Support

Why it can be scaled and what's needed to adopt it? Low-cost, adaptable, partner-ready, etc.

Answer:

- Open, modular design: SATHI is built on open standards and APIs, allowing easy integration with existing state seed certification and licensing systems, minimizing implementation costs.
- Leverages Agri Stack data: By using verified Farmer IDs and geo-referenced land parcels from Agri Stack, the portal ensures accurate farmer linkage and transparent subsidy disbursal, reducing duplication and fraud.
- Government support and SOPs: Centralized support, detailed Standard Operating Procedures, and training materials ease adoption and facilitate nationwide rollout with consistency.

Partners & Contact Info

Who's involved and how to connect? List of key contact and partners + email / phone.

Name: Dr. Pramod Kumar Meherda

Designation: Additional Secretary, Ministry of

Agriculture & Farmers Welfare

Email ID: pk.meherda@nic.in

Contact No.: 011-23381176