# ISAP INDIA FOUNDATION

## Annual Impact Report

FY 2024–25 | April 2024 – March 2025

Building Resilient Agricultural Livelihoods Across India

Sustainable Agriculture · Environmental Conservation · Rural Livelihoods

CSR Partners: CNH Industrial · D.E. Shaw India Pvt. Ltd. · Fujitsu India · HDFC Bank Parivartan · Case New Holland Construction Equipment India

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# Message from Leadership

FY 2024–25 stands as one of the most expansive years in ISAP India Foundation's history. Across nine states and Union Territories — Uttar Pradesh, Haryana, Maharashtra, Madhya Pradesh, Andhra Pradesh, Karnataka, Punjab, Jammu & Kashmir, and Ladakh — our teams implemented nine concurrent programmes touching over 5,200 farmers, 55+ villages, and some of the most pressing environmental and livelihood challenges in rural India.

From eliminating stubble burning in Karnal's paddy belt and Bulandshahr's sugarcane fields to building walnut processing units in Kishtwar, from establishing Farmer Interest Groups across Kashmir's saffron valleys to transforming soil health in Dehu. FY 2024–25 reflects ISAP at its broadest and most impactful. What unites these programmes is a single conviction: lasting agricultural transformation requires science, community trust, and institutional partnership working together.

We are deeply grateful to CNH Industrial, D.E. Shaw India Pvt. Ltd., Fujitsu India, HDFC Bank Parivartan, and Case New Holland Construction Equipment India Pvt. Ltd. for making this work possible — and to the thousands of farming families across India whose courage and curiosity are the engine of everything we do.

**Mr Bhaskar Natrajan**

Chairmen, ISAP India Foundation

# About ISAP India Foundation

ISAP India Foundation (Enterprise4Impact) is a New Delhi-based development organisation working at the intersection of agriculture, livelihoods, and environmental sustainability. Since 2001, ISAP has grown into a multi-state implementation partner trusted by government agencies, ICAR institutions, and leading corporate CSR programmes.

| | |
|---|---|
| **Founded** | 2001 |
| **Headquarters** | New Delhi, India |
| **States of Operation** | 23 States across India |
| **Farmer Reach (Cumulative)** | 1.2 Million+ Farmer Households |
| **FPOs Supported** | 350+ Farmer Producer Organisations |
| **Thematic Focus** | Sustainable Agriculture · Agricultural Mechanisation · FPO Incubation · Rural Enterprise · Environmental Conservation · Women's Empowerment |
| **CSR Partners (FY 2024–25)** | CNH Industrial \| D.E. Shaw India Pvt. Ltd. \| Fujitsu India \| HDFC Bank Parivartan \| Case New Holland Construction Equipment India Pvt. Ltd. |

# FY 2024–25 at a Glance

| | | | |
|---|---|---|---|
| **9** States / UTs Active | **9** Programmes | **5,200+** Farmers Reached | **55+** Villages Impacted |
| **5** CSR Partners | **636+** Acres Baled | **100%** P0748 Targets Met | **1,550** Sq.m Forest Planted |

## Project 1 | Crop Residue Management — Bulandshahr, Uttar Pradesh

| | |
|---|---|
| **CSR Partner** | MIS Support Centre Pvt. Ltd. (Moody's) |
| **Location** | Bulandshahr District, Uttar Pradesh |
| **Target Crop** | Sugarcane (Primary) |
| **Farmers Reached** | 500+ across project villages |
| **Land Covered** | 500+ acres under In-Situ CRM practices |
| **Key Activities** | 10 Sensitization Trainings (IARI co-facilitated) · 4 Exposure Visits to ICAR Institutions · Super Seeder demonstrations |

## Problem & Approach

Bulandshahr district's sugarcane belt is trapped in a cycle of open-field residue burning — each tonne releasing 3 kg of particulate matter and 60 kg of CO, destroying soil microorganisms and entrenching chemical dependency. The CRM programme adopted a knowledge-first model: building genuine scientific conviction among farmers through IARI co-facilitated trainings and exposure visits to India's premier research institutions, not just distributing equipment.

## Exposure Visits — Four Transformational Journeys

| Indicator | Achievement | Status |
|---|---|---|
| ICAR-IARI Pusa, New Delhi | **22 farmers \| Pusa Decomposer, hydroponic farming, yield forecasting models** | **Dec 2025 ✓** |
| ICAR-IIWBR & IARI Karnal | **22 farmers \| HD 3226, DBW 187 wheat; Happy Seeder; seed processing** | **Feb 17–18, 2026 ✓** |
| ICAR-SBI Karnal | **Sugarcane trash mulching (30% moisture saving); composting; drip irrigation** | **Feb 18, 2026 ✓** |
| Pusa Kisan Mela 2026 | **150 farmers \| Modern machinery, CRM solutions, government schemes** | **Feb 25–26, 2026 ✓** |

## Key Outcomes

| 500+ | 500+ | 10 | 4 |
|---|---|---|---|
| Farmers Reached | Acres under CRM | Sensitization Trainings | Exposure Visits |

## Farmer Voices

> *"It felt like there was no real alternative. The Super Seeder changed everything — in a single pass, the residue was managed and the land ready for sowing. My soil is softer and holds moisture better." — Manoj Kumar, Keswagadi Village*

> *"What was once considered waste can become a valuable resource. Soil structure and moisture retention have measurably improved." — Rajendra Sharma, Nekpur Village*

## Project 2 | Project PEHEL — Sustainable Cane Cultivation Mechanization, Uttar Pradesh

| | |
|---|---|
| **CSR Partner** | CNH Industrial |
| **Locations** | DCM Sugar Mill, Shahjahanpur & Dhampur Bio Sugar Mill, Asmoli, Sambhal — Uttar Pradesh |
| **Model Farm Area** | 19 acres (DCM Shriram) + 25 acres (Dhampur Bio) = 44 acres total |
| **Season** | FY 2024–25 Sowing & Crop Management |
| **Technology Partner** | Plaksha University — Drone & satellite-based crop monitoring (Dr. Shashank Tamaskar) |
| **Revenue Generated** | ₹11,250 from equipment rental services (17.9 acres served at DCM Shriram) |
| **Equipment Deployed** | NH 5620 (65HP), NH 3630 Super Plus, Sugarcane Harvester, Baler, Rotavator, Disc Harrow, 2-Row Sugarcane Planter |

## Programme Overview

Project PEHEL was launched to address two interlinked challenges in UP's sugarcane sector: the shortage of skilled manpower for advanced mechanisation, and the need for environmentally responsible practices. MoUs were formalised with both DCM Shriram and Dhampur Bio Sugar Mills before implementation. The project aims to promote entrepreneurship, sustainable mechanisation, and self-employment among youth farmers.

## FY 2024–25 Season — All Activities Completed

| Indicator | Achievement | Status |
|---|---|---|
| Land Preparation | **Deep plowing, tilling, paleo irrigation, fungicide, cow dung manure — both locations** | **Feb–Mar 2025 ✓** |
| Seed Selection | **Quality seed from Sugar Mill/KVK; Hexaconazole/Carbendazim treatment; recommended varieties** | **Mar–Apr 2025 ✓** |
| Sowing | **Trench method with cane planters; 4 ft inter-row spacing; fertilizer applied simultaneously** | **Apr 10–20, 2025 ✓** |
| Intercropping | **Short-duration crops between sugarcane rows for additional farmer income** | **Apr–May 2025 ✓** |
| Weed Control | **Pre/post-germination management using Atrazine and SIMBA/Rotavator mechanical weeding** | **May 2025 ✓** |

## Technology Innovation: GEO-Tagged & Drone Monitoring

GEO coordinates from all model farm plots were shared with Plaksha University for drone-based germination counting, satellite weed/stress mapping, and PoI sensor-based sugar content monitoring at maturity. Equipment rental was formalised with sugar mill approval — creating a sustainable local machinery service model and generating rental revenue for the programme.

## Project 3 | CNH Cotton Project — HDPS Cotton Cultivation, Akola, Maharashtra

| | |
|---|---|
| **CSR Partner** | CNH Industrial |
| **Locations** | Malwada & Morgaon villages, Balapur Tehsil, Akola District, Maharashtra; Fazalika, Punjab |
| **Season** | Kharif 2025 (June–November 2025) |
| **Demo Area** | 10 acres (5 acres Malwada + 5 acres Morgaon) |
| **Technology** | High-Density Planting System (HDPS) \| Pneumatic Planter \| Mepiquat Chloride (PGR) |
| **Technical Support** | KVK Akola (soil testing) \| ICAR-CICR Nagpur (HDPS technology development) |
| **Target Impact** | 20–30% yield increase \| 40% labour dependency reduction \| 200 farmers trained |

### Why HDPS?

India produces 25% of the world's cotton but yields only 433 kg/ha versus a global average of 768 kg/ha. HDPS — developed by ICAR-CICR Nagpur — increases plant density from 18,000–20,000 to 100,000–300,000 plants per hectare using early-maturing compact varieties (125–135 day maturity vs. 180–200 days), delivering 30–50% yield improvements while enabling mechanical harvesting and escaping late-season pest pressure.

### All 10 Growth Phases Documented — Kharif 2025

| Indicator | Achievement | Status |
|---|---|---|
| Phase 1–2: Sowing & Germination | **Mechanised planting at Malwada (June 20); uniform seedling emergence at all plots** | **Jun 2025 ✓** |
| Phase 3–4: Vegetative Growth | **Second fertilizer dose applied; aphid/jassid populations exceeded ETL — first spray applied** | **Jul 2025 ✓** |
| Phase 5–6: Square Initiation & Flowering | **First Mepiquat Chloride application; 15–20 squares/plant; first flowers at Morgaon (Aug 16)** | **Aug 2025 ✓** |
| Phase 7: Peak Flowering | **Pheromone traps installed for Pink Bollworm; abundant flowering across canopy** | **Aug–Sep 2025 ✓** |
| Phase 8–9: Boll Initiation & Development | **10-day continuous rainfall caused waterlogging; fungal/whitefly management; third spray** | **Sep 2025** |
| Phase 10: Boll Maturity | **Good boll load; ~40% not fully opening due to boll rot from prolonged cloud/rain** | **Oct 2025** |

*Season Challenge & Learning: Extended September rainfall caused waterlogging and boll rot affecting ~40% of bolls. Recommendation for next season: earlier prophylactic fungicide application, improved field drainage, and expanded pheromone trap density for Pink Bollworm.*

## Project 4 | Sustainable Environment Solutions (SES-3) — Stubble Baling Operations

| | |
|---|---|
| **CSR Partner** | CNH Industrial |
| **Geographies** | Bulandsahar & Moradabad, Uttar Pradesh \| Nellore, Andhra Pradesh \| Sindanoor, Karnataka |
| **Primary Focus** | Elimination of stubble burning through mechanised round baling |
| **Equipment Procured** | 2 x New Holland 3630-2WD TX (50HP) tractors delivered December 15, 2025 |
| **Equipment Supplier** | Hanuman Motors, Kadapa District, Andhra Pradesh |

## Project Description

SES-3 introduces round balers as an economically viable alternative to open-field burning. Post-harvest crop residue is collected, compacted into bales, and channelled into value chains for animal feed, compost, or biofuel feedstock. GPS-tagged monitoring ensures accountability at every operation. The programme now spans four states, laying the foundation for a national-scale stubble management network.

## Key Achievements — FY 2024–25

| Indicator | Achievement | Status |
|---|---|---|
| New Equipment Deployed | **2 New Holland 3630-2WD TX tractors (Nellore + Sindanoor)** | ✓ Delivered |
| Bulandsahar District — Baling | **426 Acres completed — Target Exceeded** | ✓ Complete |
| Moradabad District — Baling | **210 of 310 Acres (67.7% achievement)** | In Progress |
| Total Acres Baled | **636 Acres across UP operations** | ✓ Active |
| Market Linkages | **Aggregator partnerships established for processed bale sales** | ✓ Active |
| GPS Monitoring | **GPS-tagged documentation across all field operations** | ✓ Active |

- Bulandsahar exceeded targets with no pre-set ceiling — strong farmer participation and operational efficiency aligned with the CRM programme in the same district
- New equipment in Nellore and Sindanoor represents ISAP's first presence in AP and Karnataka for stubble management — foundation for southern expansion
- Systematic bale collection and storage protocols established; quality standards maintained throughout harvest season


New Holland

## Project 5 | Harit Dhara II — Miyawaki Afforestation, Pithampur, Madhya Pradesh

| | |
|---|---|
| **CSR Partner** | Case New Holland Construction Equipment India Pvt. Ltd. |
| **Location** | Around Sanjay Jalashaya (lake), Pithampur, District Dhar, Madhya Pradesh |
| **Tenure** | 3 Years \| Stage I — Completion Report |
| **Method** | Miyawaki Dense Native Forest Plantation (Dr. Akira Miyawaki) |
| **Area Planted** | 1,550 sq. metres |
| **Plantation Date** | September 18, 2025 |
| **Key Milestone** | Forest visible in 10 years; full maturity in 20–30 years (vs. 200–300 years conventional) |
| **Beneficiaries** | Households and industries dependent on lake water in Pithampur's industrial belt |

### Stage I — 9-Step Land Preparation: Completed

| Indicator | Achievement | Status |
|---|---|---|
| Area Marking & Excavation | **150 ft buffer from June 2025 water level; hard murrom excavated to 500mm depth** | ✓ Complete |
| Soil Backfilling | **Black cotton soil; aeration to 1,000mm for deep root development** | ✓ Complete |
| Cow Dung Application | **28 tractor-loads of gobarkhad — nutrients, water retention, microbial activity** | ✓ Complete |
| Cocopeat Addition | **Enhances soil-bed water retention capacity post cow-dung application** | ✓ Complete |
| Fertilizer Enrichment | **Potash, Phosphorus, DAP, Neem Khali, Soya Stash — 30-month nutrient reserve** | ✓ Complete |
| Rotavator Mixing | **All manures mixed to 500mm depth; regular watering initiated** | ✓ Complete |
| Matrix Grid Marking | **3 ft row-to-row, centre-to-centre; zig-zag pattern for companion tree groupings** | ✓ Complete |
| Final Plantation | **1,550 sq.m planted with native species on September 18, 2025** | ✓ Complete |
| Maintenance Phase | **Regular watering, pit maintenance, early growth monitoring — ongoing** | **Active** |

*A Miyawaki forest that would take 200–300 years to develop naturally will show visible results in 10 years and full maturity in 20–30 years. Stage I is complete; the plantation is now in active maintenance.*

## Project 6 | Sustainable CRM Demonstrations — Karnal District, Haryana

| | |
|---|---|
| **CSR Partner** | D.E. Shaw India Private Limited |
| **Location** | Karnal District & Neighbouring Districts, Haryana — 15+ villages |
| **Crops** | Paddy, Mustard, Wheat, Sugarcane |
| **Farmer Target** | 1,600 Farmers across 30 Villages (full project period) |
| **Area Target** | 2,400 Acres over project period |
| **FPO Partners** | Horticulture Farmer Producer Company \| Nilokheri Farmer Producer Company |
| **Technical Partners** | KVK Karnal \| ICAR-IIWBR \| ICAR-IARI Regional Station Karnal \| Zydex (Godhan) \| Shaktimaan \| BBEA |
| **Reporting Coverage** | Oct–Dec 2025 (Q3 FY25) + Jan–Mar 2026 (Q4/Q1 FY26) |

### Problem Statement

Stubble burning in Karnal extends across paddy, wheat, mustard, and sugarcane residue streams. The practice causes severe winter air quality degradation affecting Delhi-NCR, depletes soil nutrients, and creates adverse respiratory and cardiovascular health outcomes. The programme employs a dual-action approach: in-situ incorporation through Super Seeders and biological decomposers (Godhan), and ex-situ collection through square balers for industrial value chains.

### Cumulative Achievements — Both Quarters

| Indicator | Achievement | Status |
|---|---|---|
| Total Farmers Engaged | **950+ (800 Q3 FY25 + 150 Q4/Q1 FY26)** | ✓ Ongoing |
| Total Field Demonstrations | **800+ (Paddy + Mustard)** | ✓ Complete |
| Acres Covered Under Demonstrations | **800 Acres (Dec 2025 milestone)** | ✓ Achieved |
| Villages Covered | **15+ in Karnal District** | Active |
| Training Programmes Conducted | **4 structured workshops** | ✓ Complete |
| Exposure Visits Organised | **4 (ICAR Karnal, Pusa Kisan Mela, Ahmadnagar, KVK Baramati)** | ✓ Complete |
| In-Situ Demo — Mustard (Q4) | **150 farmers vs. Target 100 = 150% achievement** | ✓ Exceeded |
| Project Monitoring App | **1 dedicated application developed** | ✓ Complete |

| | | |
|---|---|---|
| Training Video | **5–6 minute comprehensive impact film** | **✓ Complete** |
| ICAR Institutions Linked | **3 active (ICAR-IIWBR, ICAR-IARI Karnal, ICAR-SBI)** | **✓ Active** |

## Quarter-wise Highlights

### Q3 FY25 (Oct–Dec 2025): Paddy Season

- 800 farmers onboarded and 800 field demonstrations conducted across 10+ villages using Super Seeders and Square Balers
- FPO partnerships (Horticulture FPC & Nilokheri FPC) established for community mobilisation and ground-level coordination
- Soil management training by Dr. Vikrant (Zydex) on Godhan decomposer technology — creating a complete CRM pathway from mechanised incorporation to accelerated biological decomposition
- Systematic village/farmer mapping covering harvest timelines, farm size, crop portfolios, and resource availability across all target villages
- 5–6 minute professional impact video produced with farmer testimonials and on-ground demonstration footage

### Q4 FY25/Q1 FY26 (Jan–Mar 2026): Mustard Season Scale-Up

- MoU formally signed January 28, 2026; intensive village mobilisation and machinery procurement planning completed
- 150 farmers reached through in-situ Super Seeder demonstrations in mustard crops — 50% above quarterly target (150% achievement)
- Two-day exposure visit to ICAR Research Institutes, Karnal (Feb 17–18, 2026) for 20 progressive farmers
- One-day Pusa Kisan Mela 2026 visit at ICAR-IARI, New Delhi (Feb 26, 2026) for 150 farmers — national-scale CRM machinery, government schemes, and peer farmer success stories
- Four structured training workshops on Super Seeder operation, decomposer application, and soil health

## Farmer Voices from Karnal

> *"Before this project, clearing my mustard field after harvest was the most difficult and expensive part of the season. Now with the Super Seeder, everything is done in one go — the residue goes back into the soil, I save money, I save time, and my land is better for it."*
> *— Gurnam Singh, Village Khanpur, Karnal*

> *"Ab mere saath-saath gaon ke aur bhi kisan super seeder ka use kar rahe hain, aur stubble burning ki problem kaafi had tak resolve ho gayi hai." (Now alongside me, other farmers in the village are also using the super seeder, and stubble burning has been largely resolved.)*
> *— Balwan Kashyap, Sangohi Village*

> *"The baler converted all my paddy residue into neat bales — no burning, clean fields, and I was ready for the next crop cycle faster than ever." — Om Parkash, Darar Village, Karnal*

## Project 7 | Building Resilience — Sustainable Agriculture, Dehu-Talawade, Pune

| | |
|---|---|
| **CSR Partner** | Fujitsu India |
| **Phase** | Phase 2 — Completion Report \| September 2025 – March 2026 |
| **Target Region** | Dehu & Talawade agrarian belt, Pune, Maharashtra — 10+ villages, 20+ hamlets |
| **Scale** | 200+ Farming Households \| Vitthalwadi to Sudumbre corridor |
| **Key Technologies** | Biogas Units · Vermicompost Beds · Biostimulants (Biome-certified) · Soilometers · Solar Insect Traps |
| **Programme Goal** | Community-wide sustainable agriculture transformation; technology transfer to self-reliance |

## Context & Challenge

The Dehu-Talawade region faces an acute convergence of challenges: industrial effluents contaminating the Indrayani River, soil fertility depletion from decades of chemical fertilizer use, and escalating climate volatility. Phase 2 consolidated and scaled proven Phase 1 technologies — biogas, vermicomposting, and organic farming — delivering them at community scale across 200+ farming households.

All interventions were designed for long-term self-sufficiency: farmers were trained not just to use technologies, but to maintain, propagate, and teach them to peers — creating autonomous knowledge networks independent of continued external support.

## Phase 2 — 100% Target Completion Across All Indicators

| Indicator | Achievement | Status |
|---|---|---|
| Biogas Units Installed | **110 Units** | **100% ✓** |
| Vermicompost Beds Installed | **140 Units** | **100% ✓** |
| Biostimulant Kits Distributed | **100 Farmers** | **100% ✓** |
| Soilometer Kits Distributed | **100 Farmers** | **100% ✓** |
| Solar Insect Traps Installed | **140 Units** | **100% ✓** |
| Farmer Exposure Visits | **2 Visits / 50 Farmers** | **100% ✓** |
| On-Ground Training Sessions | **9 Sessions** | **100% ✓** |

## Technology Impact Deep-Dive

### Biogas — Clean Energy & Soil Fertility

110 biogas units convert organic household and agricultural waste into clean cooking fuel, directly substituting LPG. Bio-slurry byproduct is applied to fields as high-quality organic fertiliser, rebuilding soil microbial communities and reducing synthetic fertilizer dependency by up to 30%.

### Vermicompost — Circular Soil Economy

140 vermicompost beds convert agricultural residue into nutrient-rich compost via earthworm activity — creating a closed-loop system where farm waste enriches the soil, reducing both chemical input costs and waste.

### Biostimulants — Organic Productivity Revolution

100 farmers received Biome-certified organic biostimulant kits. A multiplier model was used — progressive farmers who received training became peer educators, disseminating knowledge across their communities for farmer-to-farmer replication.

### Soilometers — Data-Driven Precision Farming

100 farmers received portable soilometer kits to measure soil moisture, temperature, and nutrient levels in real time. This enables precision decisions on irrigation scheduling and fertilizer application — reducing waste and improving input-use efficiency.

### Solar Insect Traps — Chemical-Free Pest Management

140 solar-powered traps eliminate pesticide dependency for insect pest control — protecting the Indrayani River from chemical runoff and reducing production costs across 10+ villages.

## Selected Farmer Impact Stories

> *Balu Damu Hagavane, Vitthalwadi: Biogas installation extended LPG cylinder life from 1 month to 3 months — a 66% reduction in fuel expenditure. Bio-slurry application reduced synthetic fertilizer dependency by 30%, actively rebuilding soil microbial health.*

> *Vilas Pandurang Jagtap, Pune Belt: Adoption of Biome-certified organic inputs led to a 45–50% reduction in production costs, turning organic innovation into a high-performance business strategy.*

## SDG Alignment — Project 7

| SDG Goal | Contribution |
|---|---|
| SDG 1 No Poverty | 20% increase in farm income targeted through technology inputs and cost reduction for 200+ households |

| | |
|---|---|
| **SDG 2 Zero Hunger** | Vermicompost, biostimulants, and integrated pest management collectively improve yield quality and food security |
| **SDG 5 Gender Equality** | Women-headed agricultural households prioritised in all beneficiary categories across the Dehu-Talawade corridor |
| **SDG 13 Climate Action** | Biogas reduces methane emissions; organic inputs sequester soil carbon (~1.5 tonnes estimated across programme area) |
| **SDG 15 Life on Land** | Reduced chemical runoff protects Indrayani River; 140 solar trap farms eliminated pesticide dependency across 10+ villages |

# Cross-Cutting Themes & Strategic Approach

## 1. Farmer-Centric, Science-Backed Delivery

Across all seven programmes, ISAP prioritises direct field-level engagement before deploying any technology. Community meetings, harvest timeline documentation, and systematic farmer mapping precede all demonstrations — ensuring interventions are timed, targeted, and contextually relevant. Technical credibility is maintained through co-facilitation with ICAR institutes, KVKs, and specialised institutions including IARI, IIWBR, CICR, and university research teams.

## 2. Technology Transfer to Self-Reliance

Every programme is designed to build farmer capacity for independent operation, maintenance, and replication. The multiplier model in biostimulant training (Dehu), peer-to-peer soilometer learning, progressive farmer champion networks in the CRM programmes, and FPO leadership capacity-building in Karnal all reflect this commitment. The goal is autonomous replication — not continued external dependency.

## 3. Circular Economy Principles

From crop residue baling (SES-3, Karnal CRM) to biogas slurry fertilisation (Dehu), vermicompost production (Dehu), in-situ mulching (Bulandshahr, Karnal), and sugarcane trash composting (PEHEL) — ISAP programmes consistently convert agricultural waste into productive resources. This reduces farmer input costs, restores ecosystem services, and generates supplementary income — creating financially self-reinforcing cycles.

## 4. Adaptive Implementation

ISAP demonstrated strong adaptive management across FY 2024–25. Weather constraints in Karnal were addressed through staggered demand-responsive scheduling without reducing scope. Incomplete Moradabad baling targets (SES-3) were addressed with pre-positioned equipment. Cotton crop challenges from extended rainfall informed revised fungicide protocols. Flexibility combined with GPS-tagged monitoring and robust documentation ensured programme integrity without compromising farmer trust.

## 5. Institutional Ecosystem Building

A defining strength of FY 2024–25 is the depth of institutional linkages created. Across seven programmes, ISAP established active working relationships with ICAR-IARI, ICAR-IIWBR, ICAR-SBI, ICAR-CICR, ICAR-CPRI, KVK Akola, KVK Karnal, Plaksha University, two UP sugar mills, two Karnal FPOs, and multiple technology providers. These connections extend the reach and credibility of each programme far beyond ISAP's direct field presence.

## Project 8 | Agri Value Chain Development — Jammu Region & Kargil, Ladakh (P0748)

| | |
|---|---|
| **CSR Partner** | HDFC Bank Parivartan |
| **Project Code** | P0748 |
| **Period Reported** | April 2024 – March 2025 (Full FY 2024–25) |
| **Locations** | Doda, Kishtwar, Ramban Districts — Jammu Region; Kargil District — Ladakh UT |
| **Farmers Mobilised** | 2,600 farmers under 5 Farmer Producer Companies (FPCs) |
| **Fund Sanctioned & Utilised** | INR 2,36,49,944/- (100% utilisation — Nil unutilised) |
| **Key Commodities** | Rajmah, Turmeric, Anardana, Saffron, Maize, Honey, Walnuts, Apples |
| **FPO Approach** | 5 Farmer Producer Companies formed across 4 districts with elected Boards of Directors |

## Programme Overview

In Jammu region, 95% of farmers are small and marginal, operating in a landscape of under-investment in agricultural marketing and processing. Despite this, the region holds extraordinary potential — diverse natural capital including unique soils, quality water, biodiversity, micro-climatic variations, and niche commodities that command premium prices in national and international markets.

ISAP India Foundation, supported by HDFC Bank Parivartan, designed a comprehensive value chain intervention targeting every link — from production and productivity to value addition, market access, and risk reduction through innovation. The programme adopted a 'low carbon footprint, value chain approach,' building backward and forward linkages by strengthening farmer collectives and delivering business services including input supply, financial linkages, value addition, and market diversification.

## FY 2024–25 Achievements — 100% Targets Met Across All Indicators

| Indicator | Achievement | Status |
|---|---|---|
| Farmer Mobilisation | **86 of 86 targeted — awareness and mobilisation drive across Doda, Kishtwar, Ramban & Kargil** | **100%** ✓ |
| FPO BoD Training | **15 of 15 Board of Director members trained on compliance, accounting, governance & leadership** | **100%** ✓ |
| Solar Street Lights | **174 of 174 solar lights distributed to farmers across all 4 districts** | **100%** ✓ |
| Exposure Visits | **10 of 10 visits completed — farmers exposed to advanced practices, research institutes, progressive FPOs** | **100%** ✓ |

| | | |
|---|---|---|
| Capacity Building Programmes | **14 of 14 capacity building sessions on crop production, processing & value addition** | **100% ✓** |
| Walnut Cracking & Peeling Unit | **1 unit established — enabling local-level nut processing for value addition and income enhancement** | **100% ✓** |
| Solarization of Walnut Unit | **1 unit solarized — energy efficiency and uninterrupted operation through solar power** | **100% ✓** |
| Vacuum Packing Units | **3 units provided — extended shelf life and improved market presentation for FPO products** | **100% ✓** |
| Solar Dryers | **3 units distributed — reduced post-harvest losses through sustainable drying technology** | **100% ✓** |
| Soil Test Units | **3 units provided — scientific soil nutrient management for improved input planning** | **100% ✓** |
| Apple Pulp Unit | **1 unit established — reduced fruit wastage through value-added local processing** | **100% ✓** |
| Solarization of Apple Pulp Unit | **1 unit solarized — reduced energy costs and improved sustainability of apple processing** | **100% ✓** |
| Anardana (Spice) Unit | **1 unit established at Dagan Top FPCL — niche market access for local spice value chain** | **100% ✓** |
| Tractor | **1 tractor provided — enabled timely land preparation and cost savings for farmers** | **100% ✓** |
| Tillage Machine | **1 machine provided — improved farm productivity through better land preparation** | **100% ✓** |
| Spray Pump | **1 unit provided — improved crop protection and scientific spraying practices** | **100% ✓** |
| Grass Cutters | **3 provided (1 planned + 2 preponed from FY26) — eased fodder collection on hilly terrain** | **100% ✓** |
| Local Resource Persons | **72 of 72 LRPs remunerated — consistent field support for farmer handholding** | **100% ✓** |
| Buyer-Seller Meets | **2 of 2 conducted — direct market linkages, reducing dependence on intermediaries** | **100% ✓** |

## Budget Utilisation

Total fund sanctioned for FY 2024–25: INR 2,36,49,944/-. Utilisation: 100% (INR 2,36,49,944/-). Nil unutilised balance. A deviation of INR 2,15,733/- was formally approved and reallocated from Agriculture Expert, Marketing Expert, and M&E budget heads towards Local Conveyance (unforeseen travel due to weather-related repeated site visits) and preponed procurement of 2 additional grass cutters ahead of the cropping season.

## Key Challenges

- Extreme weather conditions limiting operational windows by approximately 1.5 quarters annually across high-altitude districts
- Geo-political scenario in border districts affecting logistics and team movement
- Low telephonic and internet connectivity in remote areas — especially during winter months
- Lack of consistent electricity during winter requiring solar-based alternatives throughout
- Farmers continuing traditional post-harvest management practices due to limited historical information access

## Success Story: Sangaldan FPO — Anardana Value Chain, Ramban

*Sangaldan, a remote block 35 km from Ramban, has long depended on traditional farming of wild Anardana (pomegranate seeds), quince, and local crops. ISAP helped form Dagan Top Farmers Producer Company Ltd., bringing 500 farmers together. The first intervention — an Anardana grinder in Dalwah village — converted raw Anardana into powder with longer shelf life and higher market value. Building further, the FPO is now preparing to produce Anardana Goli (digestive candy), supported by an Anardana deseeder and solar dryers from ISAP. Today, 1,000+ families are benefiting. Farmers are moving from bulk selling to branded, finished products — gaining control over pricing and access to new markets.*

## Project 9 | Agri-Horticulture Value Chain Development — Kashmir Valley (P0999)

| | |
|---|---|
| **CSR Partner** | HDFC Bank Parivartan |
| **Project Code** | P0999 |
| **Period Reported** | October 2024 – March 2025 (Launch & Phase 1) |
| **Locations** | 5 Districts of Kashmir Valley: Budgam, Baramulla, Ganderbal, Kupwara, Pulwama |
| **Target Farmers** | 3,000 farmers across 5 districts |
| **Focus Crops** | Vegetables (primary), Saffron, Horticulture |
| **Key Infrastructure** | Low-cost polyhouses, Micro drip irrigation, Solar dryers, Solar pumps |
| **Launch Event** | September 19, 2025 \| Hotel Asian Park, Srinagar — key stakeholders across agriculture, finance, government, and markets |

## Programme Background

The P0999 programme is designed to enhance livelihoods of 3,000 farmers across five districts of Kashmir by unlocking the potential of agriculture and horticulture value chains. The project addresses the core challenges facing small and marginal farmers in J&K — fragmented landholdings, low mechanisation, inadequate institutional credit access, and weak market integration — through a combination of infrastructure support, collective action, and climate-resilient technologies.

The programme mobilises farmers into Farmer Interest Groups (FIGs) and provides critical infrastructure for protected cultivation (polyhouses), water-efficient drip irrigation, solar-powered post-harvest management, and market integration through Buyer-Seller meets and cross-learning events.

## Phase 1 Activities — Oct 2024 to March 2025

| Indicator | Achievement | Status |
|---|---|---|
| Project Launch Event | **Sept 19, 2025, Hotel Asian Park, Srinagar — stakeholders from agriculture, financial institutions, government, and market buyers** | ✓ Complete |
| Team Recruited | **1 Project Coordinator, 5 District Coordinators, 5 CRPs (1 per district), 1 Food Technologist, 1 Documentation & Fisheries Expert, 1 MIS Expert** | ✓ Complete |
| Questionnaire Finalized | **Structured data collection tool for Farmer Interest Groups developed and approved** | ✓ Complete |
| Farmer Meetings & Data Collection | **District Coordinators + CRPs conducted village-level meetings across all 5 districts — awareness, feedback, participation confirmation** | ✓ Complete |

| | | |
|---|---|---|
| Farmer Interest Groups (FIGs) | **~10 FIGs established across Ganderbal, Pulwama, Kupwara, Baramulla, and Budgam districts** | ✓ **Established** |
| Mulching | **20 hectares across 4 districts (Ganderbal, Kupwara, Budgam, Pulwama)** | ✓ **Complete** |
| Drip Irrigation | **20 hectares across all 5 districts** | ✓ **Complete** |
| Solar Pumps | **8 solar pumps distributed across 4 districts (Ganderbal, Pulwama, Kupwara, Budgam)** | ✓ **Distributed** |
| Solar Dryers | **10 solar dryers — 2 per district across all 5 districts (Ganderbal, Pulwama, Kupwara, Baramulla, Budgam)** | ✓ **Distributed** |
| Solar Lamps | **100 solar lamps — 50 in Tanghdar, Kupwara & 50 in Uri, Baramulla** | ✓ **Distributed** |

## Programme Objective

The project's central objective is to unlock the potential of agri-horti value chains to double farmers' incomes by supporting their collectives. This is achieved by strengthening their ability to climb the value chain — enhancing production and productivity, promoting value addition, increasing market access, and reducing risks through innovative climate-resilient agricultural practices including protected cultivation (polyhouses), efficient water management (drip irrigation), and renewable energy solutions (solar pumps, dryers, lamps).

## Strategic Design

- Institution Building: Opinion leaders engaged as Local Resource Persons (LRPs) to mobilize farmers into Farmer Interest Groups; FIGs elect Boards for newly registered FPCs; training on governance, record-keeping, and compliance
- Agri-Extension: Best cultivation practices promoted through KVK-supported training, printed protocols, and field demonstrations tailored to Kashmir's agro-climatic conditions
- Exposure & Learning: Cross-learning through visits to successful farms, research institutes, and established FPCs
- Agri-Infrastructure: Processing units and input-output infrastructure established to improve price realisation and create rural employment
- Market Linkages: FPCs supported to engage directly with buyers through Buyer-Seller meets and digital platforms — ensuring better value share for farmers

> *Phase 1 (Oct 2024–Mar 2025) focused on establishing the organisational and physical foundation — teams, FIGs, and core infrastructure (drip irrigation, solar dryers, solar pumps, mulching). Phase 2 will scale to polyhouses, advanced market linkage activities, and Buyer-Seller meets targeting enhanced income outcomes for all 3,000 enrolled farmers.*

# Our Partners — FY 2024–25

## CSR Partners

| | |
|---|---|
| **CNH Industrial** | Project PEHEL (Sugarcane Mechanization — UP), CNH Cotton Project (HDPS Cotton — Maharashtra & Punjab), SES-3 (Stubble Baling — UP, AP, Karnataka) |
| **D.E. Shaw India Private Limited** | Sustainable CRM Demonstrations, Karnal, Haryana — targeting 1,600 farmers across 30 villages over the project period |
| **Fujitsu India** | Building Resilience Phase 2 — Dehu-Talawade, Pune: 200+ households, 7 technology interventions, 100% targets achieved across all indicators |
| **HDFC Bank Parivartan** | P0748: Jammu & Ladakh Agri Value Chain (April 2024–March 2025) — 2,600 farmers, 5 FPCs, INR 2.36 Cr fully utilised, 100% on all indicators \| P0999: Kashmir Valley Agri-Horticulture (Oct 2024–March 2025) — 3,000 farmers targeted, 5 districts, FIGs established, infrastructure deployed |
| **MIS Support Centre Pvt. Ltd. (Moody's)** | CRM Programme, Bulandshahr, UP — 500+ farmers, 10 IARI-facilitated sensitization trainings, 4 ICAR exposure visits |
| **Case New Holland Construction Equipment India Pvt. Ltd.** | Harit Dhara II Miyawaki Plantation — 1,550 sq.m planted around Sanjay Jalashaya, Pithampur, Dhar, M.P. |

## ICAR & Academic Institutions

- ICAR-IARI, Pusa, New Delhi — Pusa Decomposer, sensitization trainings, Pusa Kisan Mela 2026
- ICAR-IIWBR, Karnal — Wheat/barley CRM, Happy Seeder demonstrations, improved variety guidance
- ICAR-IARI Regional Station, Karnal — Seed technology, biofortified varieties, precision nutrient management
- ICAR-Sugarcane Breeding Institute (SBI), Karnal — Sugarcane CRM, variety research, trash management
- ICAR-Central Institute for Cotton Research (CICR), Nagpur — HDPS cotton technology
- ICAR-Central Potato Research Institute (CPRI), Meerut — Potato diversification and crop rotation options
- KVK Akola — Soil testing and agronomic advisory for CNH Cotton Project
- KVK Karnal — Technical guidance and quality assurance for D.E. Shaw CRM demonstrations
- Plaksha University (Dr. Shashank Tamaskar) — Drone and satellite monitoring for Project PEHEL

## Industry & FPO Partners

- DCM Shriram Industries, Shahjahanpur — Sugar mill MoU partner for PEHEL mechanization
- Dhampur Bio Sugar Mill, Asmoli, Sambhal — Sugar mill MoU partner for PEHEL mechanization
- Horticulture Farmer Producer Company, Karnal — FPO ground partner for CRM demonstrations
- Nilokheri Farmer Producer Company, Karnal — FPO ground partner for CRM demonstrations

- Zydex Industries (Godhan Decomposer) — Biological decomposer technology partner, Karnal CRM
- Hanuman Motors, Kadapa, A.P. — Equipment supplier for SES-3 tractor procurement

# Looking Ahead: FY 2025–26 Priorities

| | |
|---|---|
| **CRM Karnal (D.E. Shaw)** | Scale to 1,600 farmers and 1,600 acres targeting wheat and paddy crops; expand to neighbouring districts; deepen FPO independent replication capacity |
| **CRM Bulandshahr (Moody's)** | Peer-led replication; machinery subsidy facilitation (Happy Seeders); institutionalise annual IARI exposure visit calendar |
| **Project PEHEL (CNH)** | Complete FY 2025–26 crop protection, earthing up, and monitoring; expand model farm area; formalise equipment rental revenue model |
| **CNH Cotton Project** | Expand HDPS to additional Akola villages; improve drainage infrastructure; pilot mechanised cotton harvesting |
| **SES-3 (CNH)** | Commission Nellore and Sindanoor tractors; assess new AP districts for baler deployment; formalise aggregator supply chains |
| **Harit Dhara II** | Sustain Miyawaki maintenance through Year 2; document biodiversity metrics quarterly; plan Phase II expansion |
| **Building Resilience (Fujitsu)** | Phase 3 scoping — consolidate Phase 2 outcomes; assess replication across additional Dehu-Talawade villages |
| **P0748 — Jammu & Ladakh (HDFC Bank)** | Enter Year 2 of programme; scale FPC business activities; expand market linkages for walnut, anardana, apple, and saffron; deepen Sangaldan FPO's Anardana Goli product launch |
| **P0999 — Kashmir Valley (HDFC Bank)** | Transition from Phase 1 (infrastructure) to Phase 2 — polyhouse deployment, advanced Buyer-Seller meets, FIG-to-FPC graduation, and full 3,000-farmer enrolment across 5 districts |

## Building Resilient Agricultural Communities Across India

This Annual Impact Report reflects the collective effort of ISAP India Foundation's field teams, our five CSR partners, ICAR scientists, KVK technical experts, Farmer Producer Organisations, industry partners, and — above all — the 5,200+ farming families across nine states and Union Territories who trusted us with their livelihoods and their futures.

From the paddy fields of Karnal to the sugarcane belt of Bulandshahr, from the cotton plots of Akola to the biogas kitchens of Dehu, from the walnut groves of Kishtwar and Doda to the saffron valleys of

Kashmir — FY 2024–25 proves that when science, community, and purpose converge, transformation at scale is achievable across every geography India presents.

ISAP India Foundation expresses sincere gratitude to CNH Industrial, D.E. Shaw India Pvt. Ltd., Fujitsu India, HDFC Bank Parivartan, and Case New Holland Construction Equipment India Pvt. Ltd. for their sustained commitment to environmental sustainability, farmer welfare, and rural transformation.

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