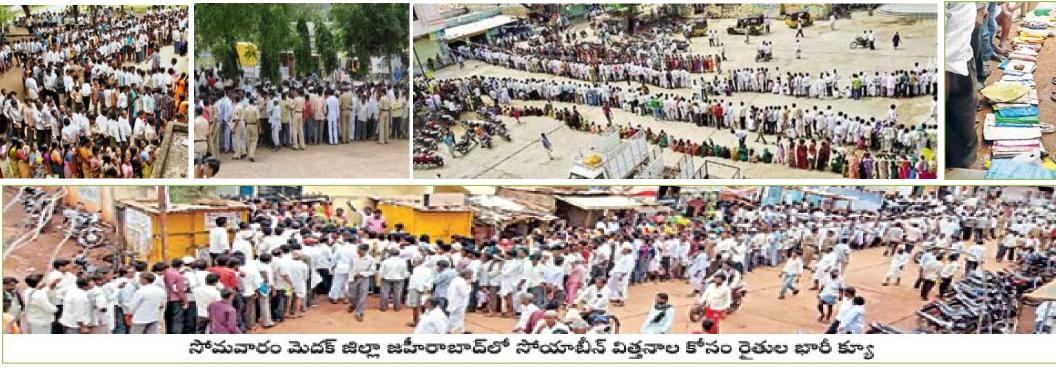


# **Understanding the Seed Crisis**

Modern agriculture faces a critical challenge: the erosion of agricultural biodiversity, farmer dependency on corporate seed systems, and loss of traditional knowledge. *These interconnected issues threaten food security and farmer sovereignty.* 



### Telangana as Seed bowl

• Seed Producing Villages: ~1,500

 Annual Seed Production Area: >7.0 lakh acres

• Annual Seed Output: ~98.0 lakh quintals

• Number of Seed Farmers: ~3.2 lakh

	Crops/Seeds	Area in lakh acres	Production in lakh quintals
1	Varietal Paddy	3.50	70.00
2	Hybrid Paddy*	1.00	7.00
3	Cotton**	0.30	1.00
4	Maize	0.75	7.50
5	Red Jowar	0.45	5.00
6	Fodder Jowar	0.20	2.00
7	Bengal Gram	0.15	1.00
8	Redgram	0.03	0.18
9	Other Pulses	0.02	0.07
10	Groundnut	0.10	0.80
11	Soybean	0.50	3.00

<sup>\*</sup>Telangana meets  $\sim$ 70% of India's hybrid paddy seed demand and 30% of inbred paddy seed needs — NSAI, 2020

<sup>\*\*</sup>Contributes about one-third of the country's total cotton seed production

# Key Initiatives on Strengthening Seed Systems

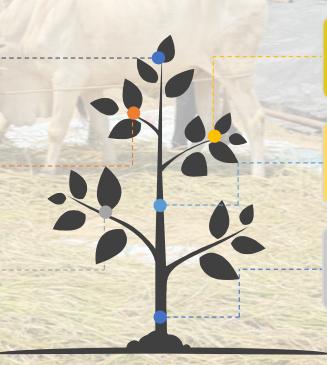




PARTICIPATORY VARIETAL SELECTION



PARTICIPATORY ORGANIC BREEDING



INSTITUTIONALIZING PRODUCTION AND DISTRIBUTION

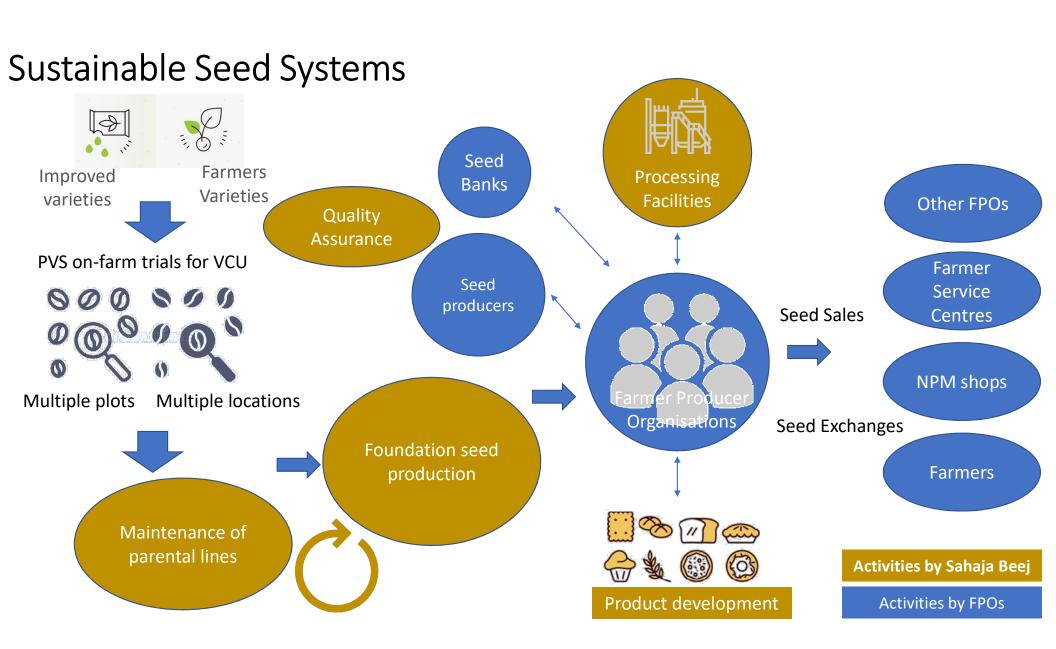


CREATING VALUE FOR DIVERSITY



OPEN SOURCE SEED SYSTEMS





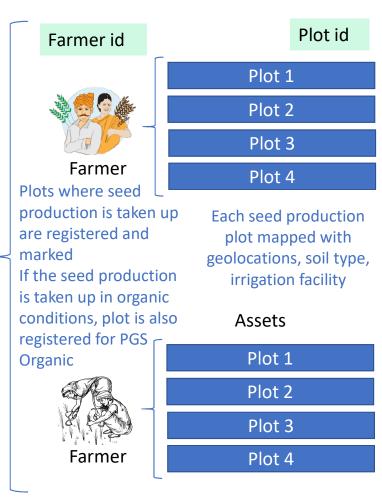


### Farmer Group

Group of 15-20 farmers in a village producing seed

Local Group organise Internal Control System

Local group holds Collateral Guarantee



**Assets** 

Seasonal Information Quality Assurance Audit

Kharif

Rabi

Summer

Year

Every season seed

recorded

recorded

**Plots** 

production plans are

Production practices,

roughing operations are

Harvesting time samples

Additional information for

collected for PGS Organic

organic certification are

including isolation,

are collected for

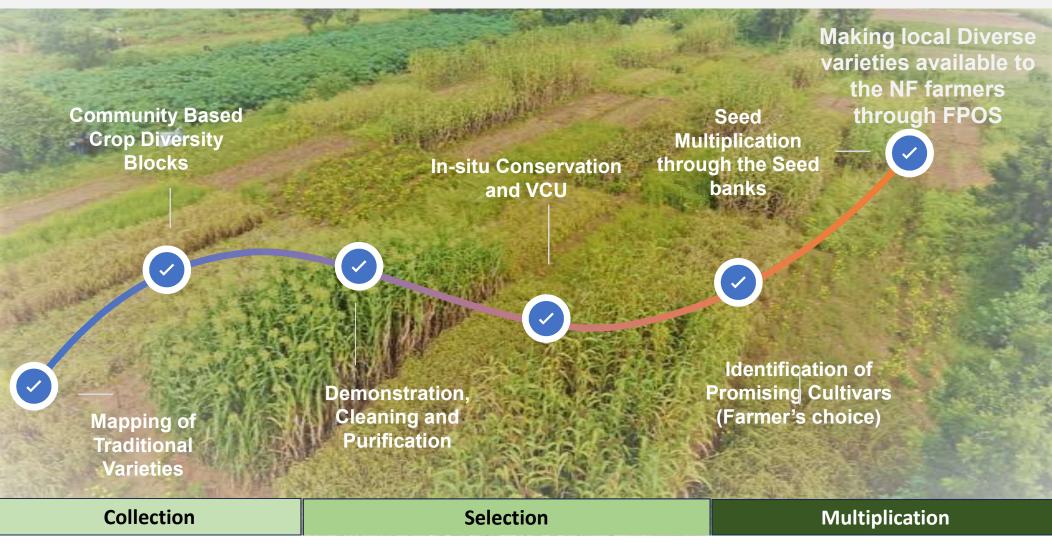
germination tests



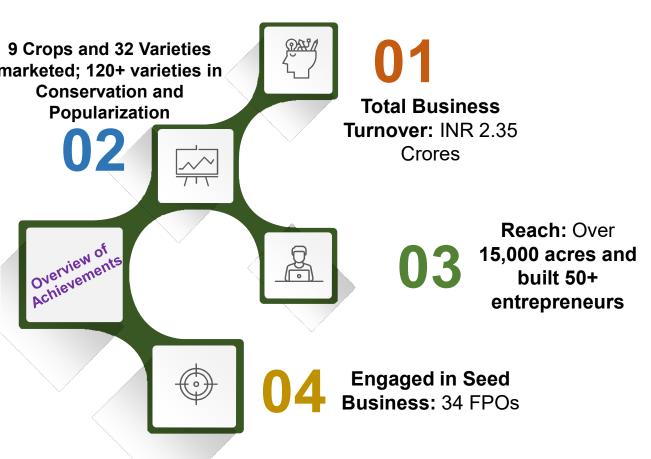
- Every season auditing team visits
- Group and farmer Records are verified
- Plots are verified for managing isolation and roughing
- One group is considered as one lot and separately tested for GOT
- Any default in a group lead to group rejection
- Certificates are issued for the quantity of expected yield and valid for one year
- Farmer can sell directly to other farmers in the FPO or to other FPOs along with a transfer certificate

**Quality Assurance for TL seeds through PGS System** 

### **Evolving Synergetic Seed Supply Chain for Traditional Varieties through FPOs**



# OUR REACH AND RESULTS SO FAR (2024 - 25)













# Challenges faced and Opportunities for TV's



# High Investment Needs:

Biodiversity conservation requires significant financial and resource investments

2



# Mono-Cropping Practices

Widespread monocropping practices, especially in Telangana, have significantly reduced agricultural biodiversity. 3



### **Synthetic Inputs**

Heavy use of chemical fertilizers and pesticides promotes high-yielding varieties, leading to biodiversity loss.

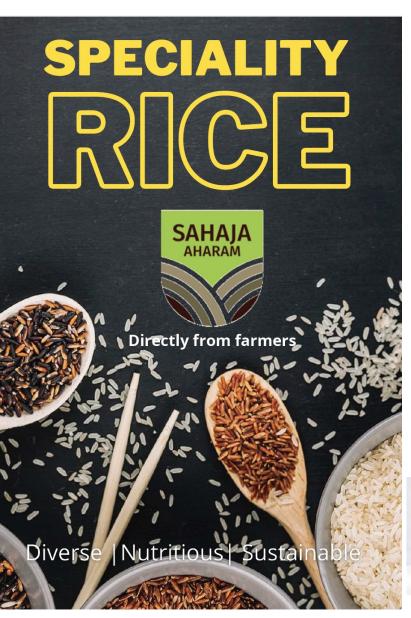


### **Nutri Garden Kits**:

There is immense potential to promote biodiversity through Nutri garden kits, which encourage the cultivation of diverse, nutrient-rich plants at the household level.

# Promotion of Navadhanya Seeds:

Scaling up the use of Navadhanya as green manure can enrich soil health and support biodiversity



# Creating value for diversity

- Specialty rice varieties
- Minor Millets
- Desi cottons for direct spinning and weaving
- Mango diversity box
- Vegetables
- Value addition













### **Open-Source Seed System (Apna Beej)**

for us means 'arrangements that facilitate and preserve freedom of access and use of plant genetic material, prohibit exclusive rights, and apply to any subsequent derivatives of those materials

### Key principles

- Freedom of access: Any one committing to OSS agreement receives freedom of access and use for the material under Standard Material and Knowledge Transfer Agreements (SMTAs)
- Equitable Benefit Sharing: all players in the supply agree to equitable benefit sharing to sustain the initiative

### Open-Source EULA on seed wrap

The seed is licensed by Apna Beej and by opening this packet you have the freedom to use these seeds any number of times in your field or exchange with other farmers for commercial crop production (other uses are governed by other material transfer agreements\*). In return, you pledge not to restrict others' use of these seeds or their derivatives by patents, licenses or other means, and to include this pledge with any transfer of these seeds.

## End User License Agreements

Our tiered EULA structure balances accessibility with sustainability, offering free reuse for individual farmers while implementing fair benefit-sharing for commercial operations and maintaining open-source principles for breeding activities.



#### Individual Farmers: Free Reuse

Implemented through seed wrap agreements, farmers enjoy unlimited freedom to use and reuse seeds for their own cultivation without any restrictions or fees.



### Commercial Seed Production: Fair Contribution

Farmers and cooperatives engaged in commercial seed sales contribute 1-2% of revenue (volume-dependent) to sustain the network. They can use varietal names with unique branding.



### Breeding New Varieties: Open Innovation

Breeders must acknowledge source materials, maintain freedom for derivative use, declare derivatives as open-source, and prohibit genetic modification to preserve seed integrity.

### Key Requirements for Derivative Varieties

- Clear acknowledgement of breeding material sources
- All derivatives distributed under open-source arrangements
- · Genetic modification explicitly prohibited
- Freedom maintained for all future derivative uses

# **Upcoming Plans for further strengthening**

- Seed Production & Diversification: Expand production to include pulses and oilseeds (promote crop diversification),
- 2. Establishment of **Seed Processing Unit**
- 3. Develop an **ERP module** for seed indents, order tracking, and inventory management.
- 4. Building **Public-Private-Partnership** (NABARD, SERP, Research Institutes, Seed companies) To enhance scale, quality, and market reach.
- 5. **Market Expansion**: Engage with more FPOs including those promoted by other agencies, to expand Sahaja Beej.
- 6. **Capacity Building**: Continue to provide orientation and training for FPO teams and strengthen coordination through CBBO support
- **7. CRM Tool Integration**: Introduce a CRM tool to track interactions with FPOs and farmers, manage feedback, grievances, and service requests, and marketing campaigns.

Reach out us; seeds@sahajaaharam.com

























