

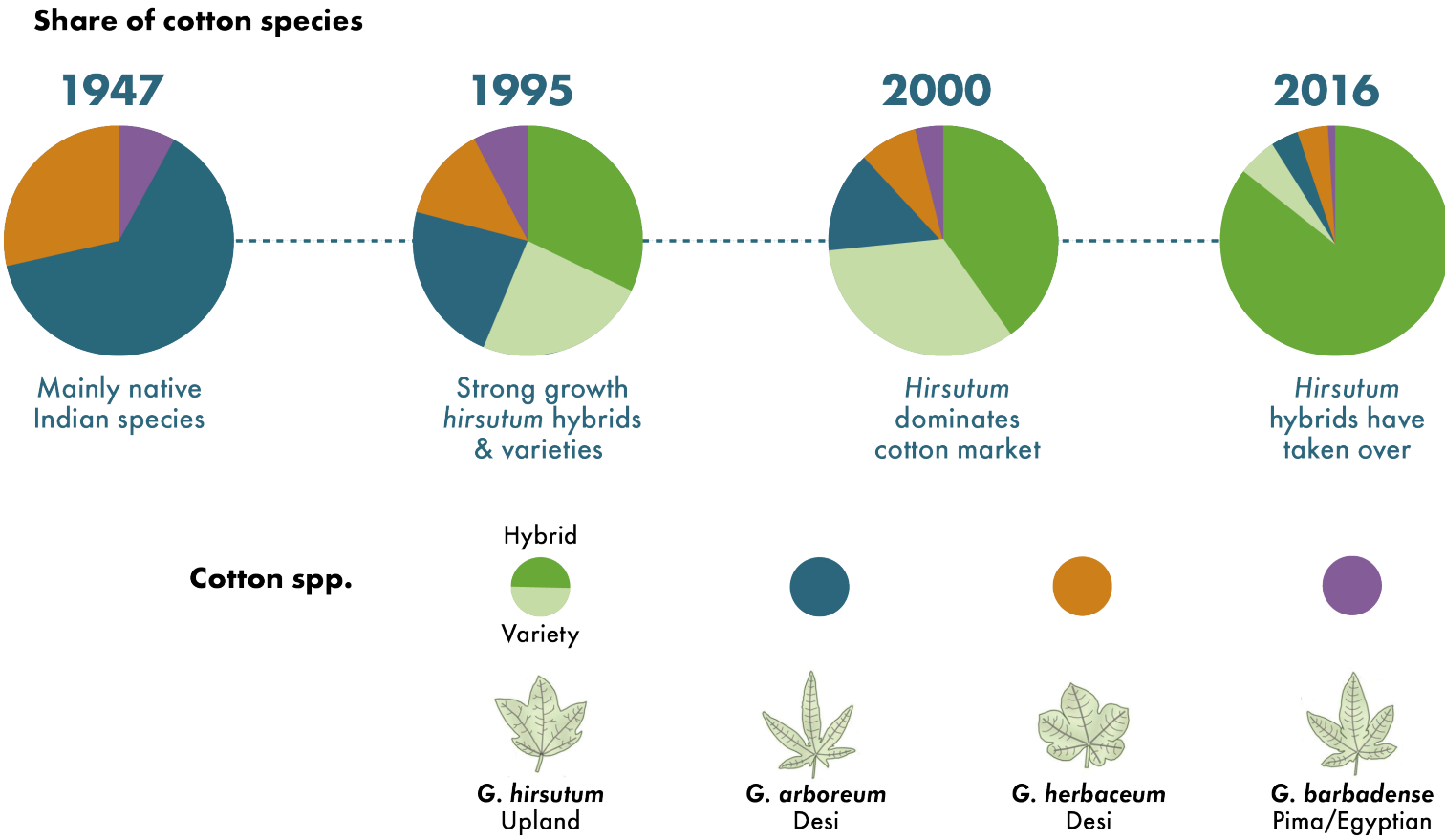


## Participatory breeding for securing genetic diversity and organic cotton production in India

Amritbir S. Riar, Tanay Joshi, Ashok Kumar, Rajeev Verma, Surendra Deshmukh, D. K. Shrivastava, G. Raja Shekar, R. C. Patel, Shivraj Raghuvanshi, Ramprasad Sana, Adinath Paslawar, N. M. Konde, Ashis Mondal, Arun Ambatipudi, Avinash Karmarkar, Seraina Vonzun, V.M. Bhale, S. K. Rao, Monika M. Messmer

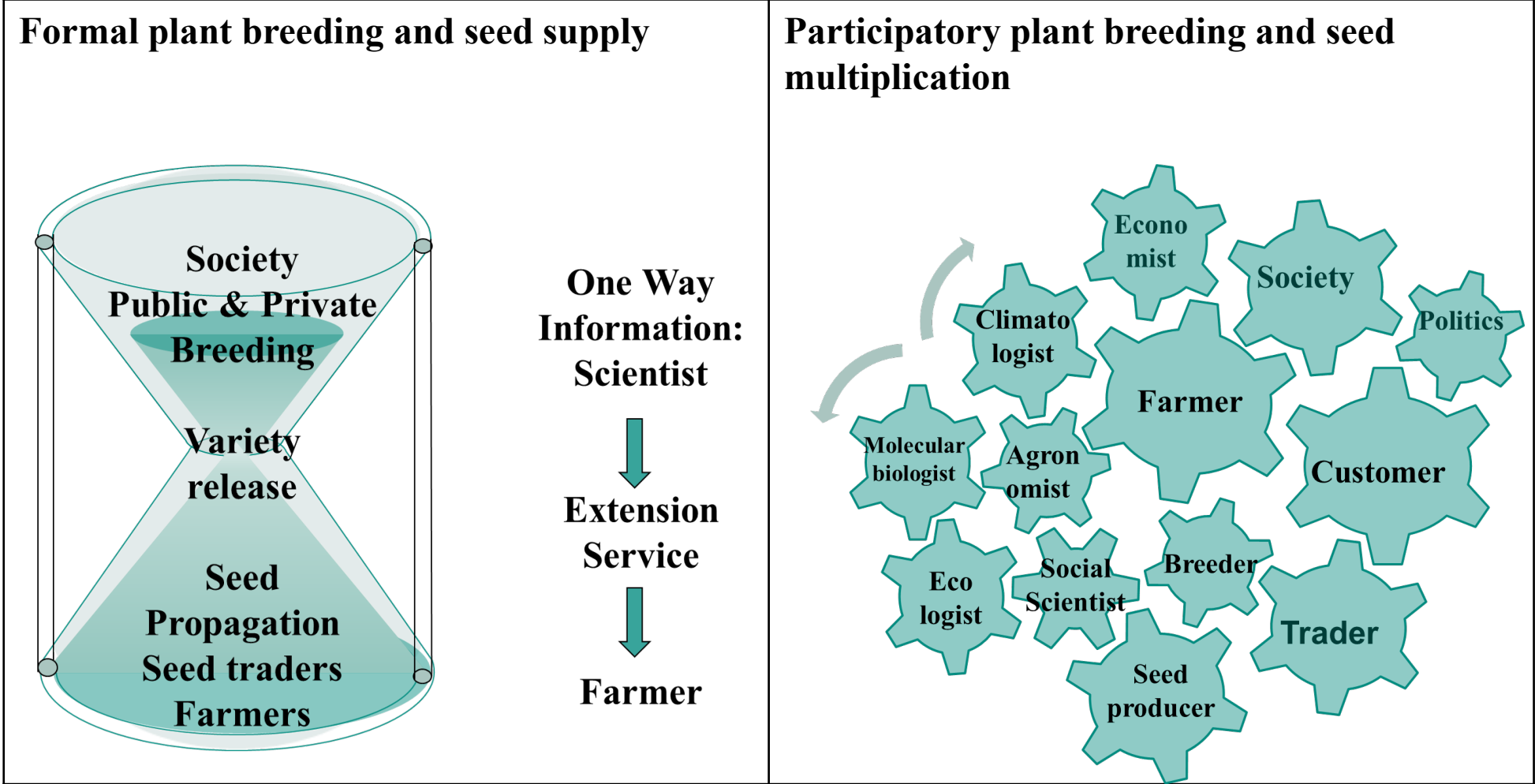
SFIAR award, 15.12.2021, Amritbir Riar

# The GM has radically changed the cotton species grown in India, affecting the organic (non-GM) seed market



## Historic development of cotton species in India

# Participatory Breeding: as a viable Alternative to Seed Monopoly



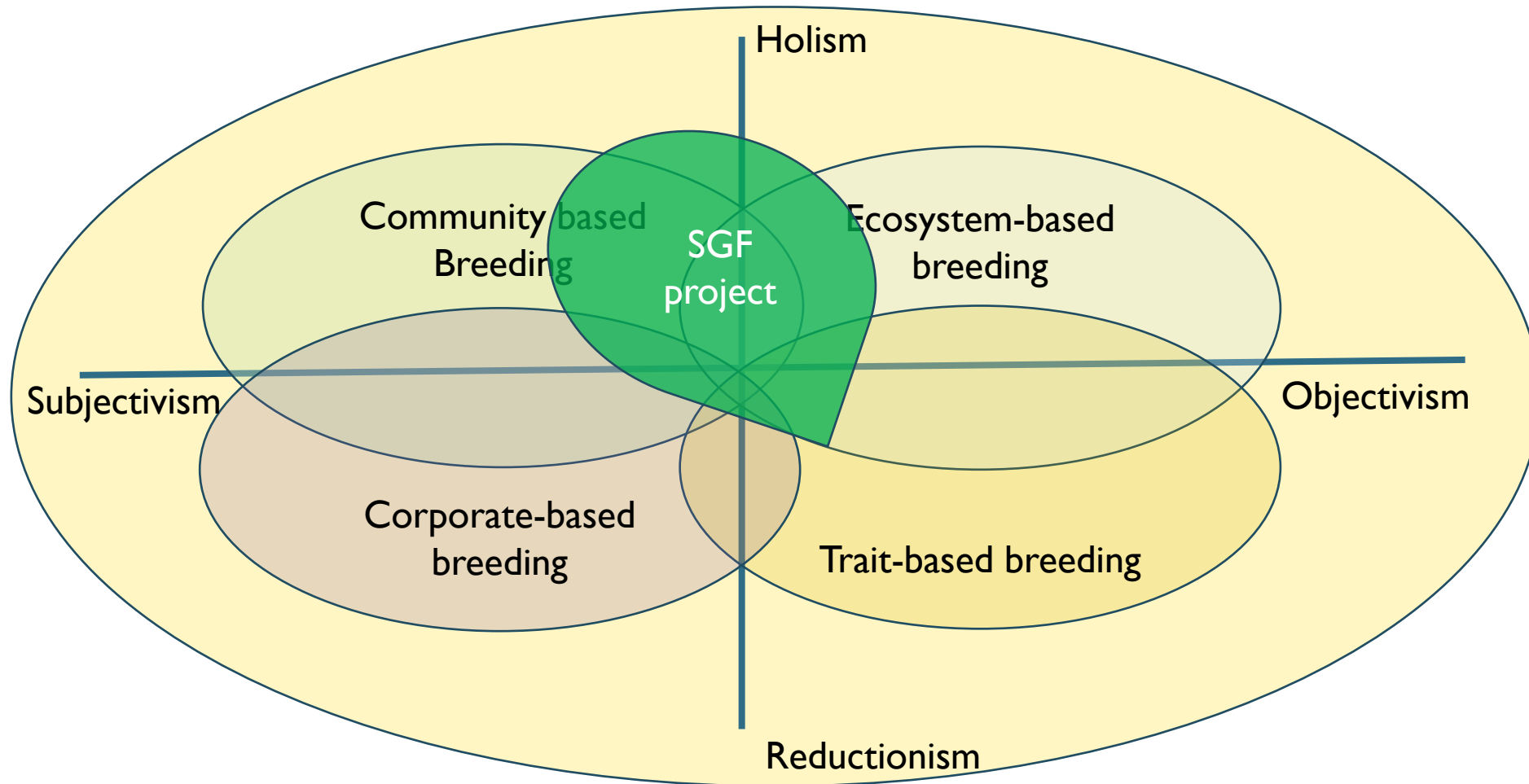
# GAME CHANGER:

# Participatory Organic Plant Breeding (POPB)

With the farmer, for the farmer, by the farmer



# Systems-based breeding concept



# Objectives of ‘Seeding the Green Future’



**Secure quality organic seed supply chain** for organic cotton farmers



**Develop a portfolio of new cotton cultivars** with

- Improved agronomic performance
- High fiber quality (>28mm)
- Adapted to the various local organic growing conditions
- High resilience towards climate change
- High adoption rate by farmers

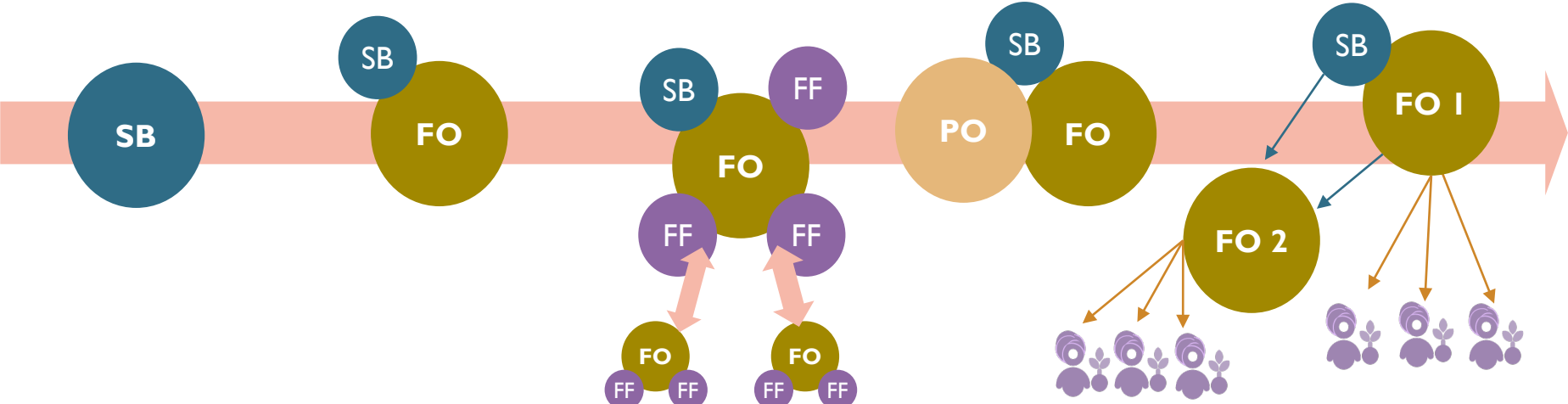
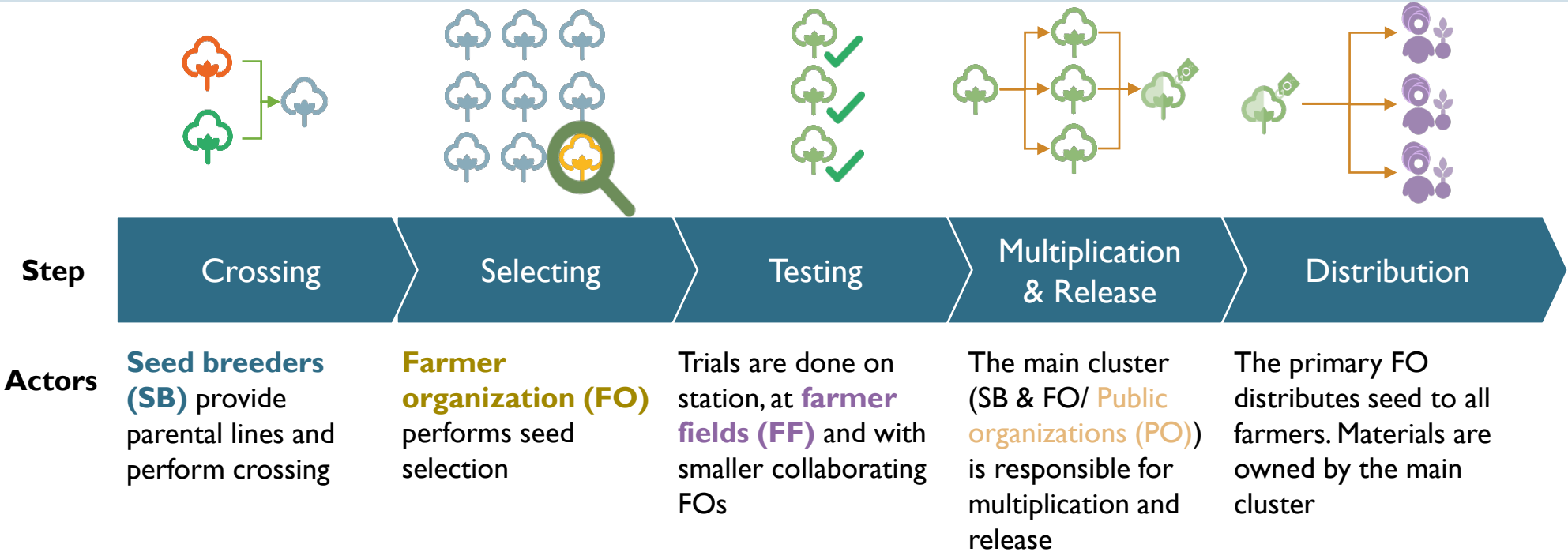


**Improve integrity of organic cotton at the source** by capacity building and close collaboration of actors among the supply chain



**Contribute to improving farmer livelihoods**

# Seed breeders, farmer organizations, farmers and value chain work closely together



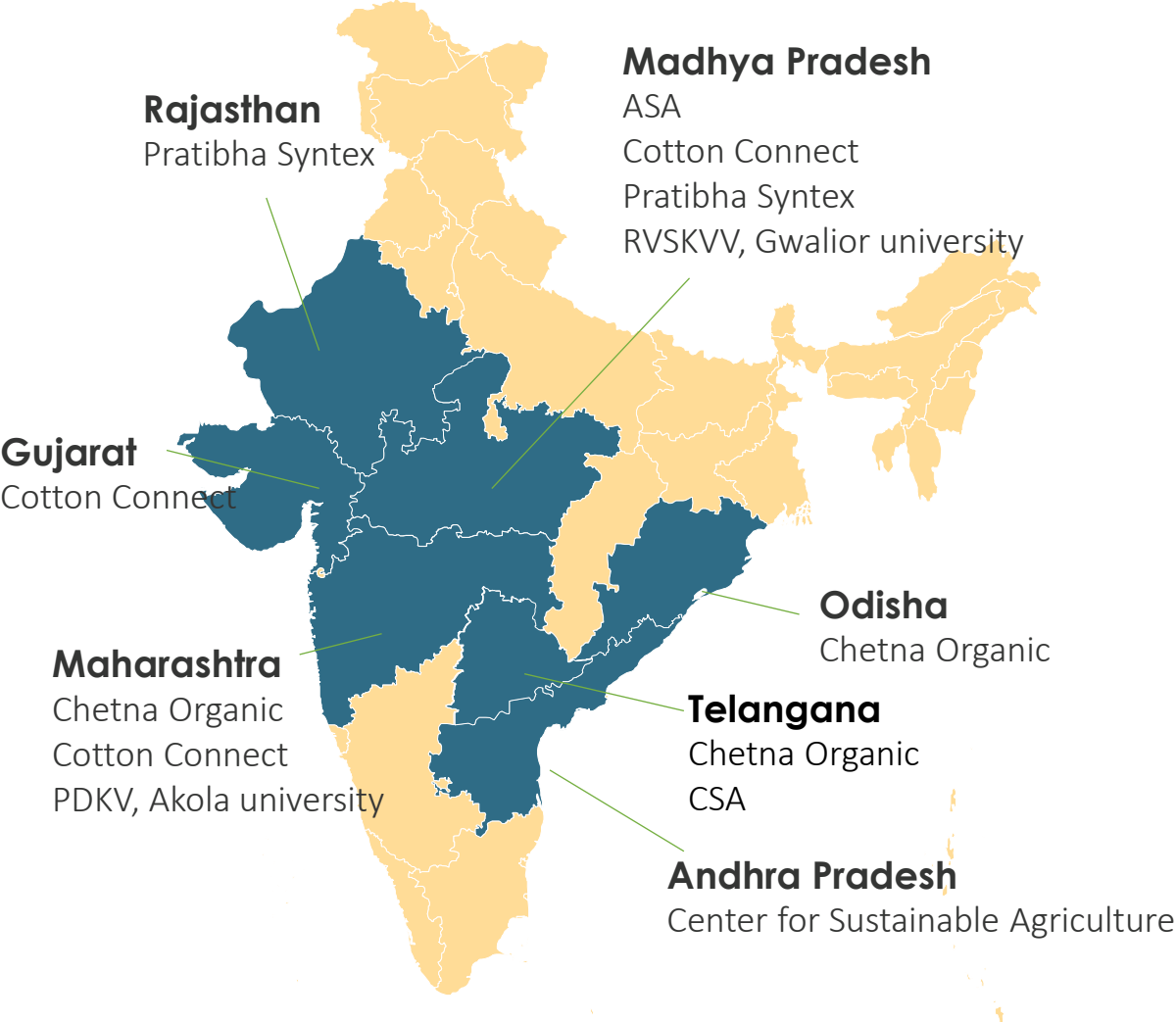
## What has been achieved and what is still going-on?

- ✓ Performance evaluation results of over **62** different cultivars, incl both SGF and commercial cultivars
- ✓ **8 own breeding lines** introduced to farm trials, selected from a total of 12 candidates
- ✓ Over **430 trials** set up in research stations and farmer's fields
- ✓ Training & exposure of **6378** farmers, **425** trainers, and **>50** master trainers/experts
- ✓ SGF Process Explainer videos [you tube channel](#) explaining breeding techniques and organic cotton crop management





# Seeding the Green Future is India's leading organic cotton breeding programme



# POCB approach has potential to address 12 SDGs



**Explicit focus on 6 SDGs**

# 'Seeding the Green Future' has ambitious goals of scaling its output and impact, given that partners and funding increase

## Roadmap to scale – the ambitions



### Success factors to scale:

- Successful fundraising from donors, foundations, industry



**Do you have any questions?**

**I have**

**How do consumers from global north can play their part in sustainable organic cotton production?**

