



Plant breeding requires a long-term vision and is a continuous race to counteract emerging pests, diseases and challenges of climate change.



We plan to rebuilding the seed sovereignty of organic smallholder cotton farmers to improve their livelihoods.

### Roadmap



Roadmap for the upscaling of the participatory breeding project.

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### About FiBL

Since 1973, the Research Institute of Organic Agriculture FiBL has been finding intelligent solutions for regenerative agriculture and sustainable nutrition. About 280 employees carry out research, advisory services and training at various sites to support organic agriculture.

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**FiBL**

GREEN COTTON II  
2018 – 2022

# Seeding the Green Future

Participatory breeding to secure income of organic cotton farmers and genetic diversity for climate change adaptation



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## Objectives of Seeding the Green Future

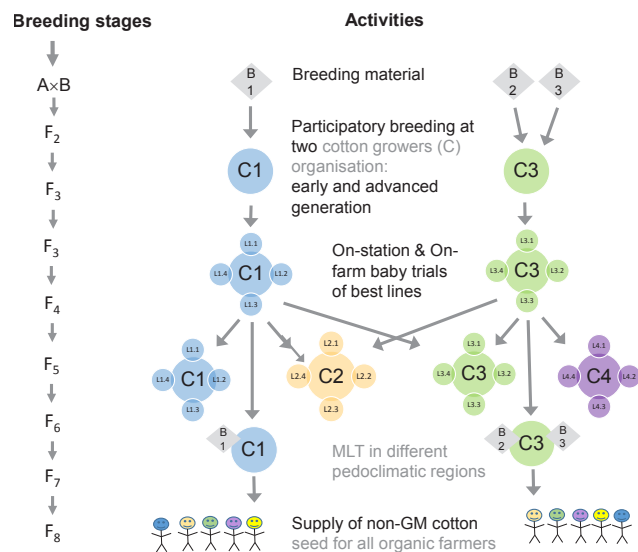
- Secure seed availability for organic cotton farmers in India.
- Develop a portfolio of new cotton cultivars including traditional Desi cotton with
  - improved agronomic performance
  - high fiber quality (fiber length of more than 28 mm)
  - adaptations for various growing conditions
  - high resilience to climate change
- Achieve high adoption rate by farmers and address anticipated changes in cultivation (mechanization)
- Improve integrity of organic cotton by capacity building and close collaboration of actors along the supply chain.



*Gossypium arboreum*  
Desi cotton  
diploid

*Gossypium hirsutum*  
Upland cotton  
tetraploid

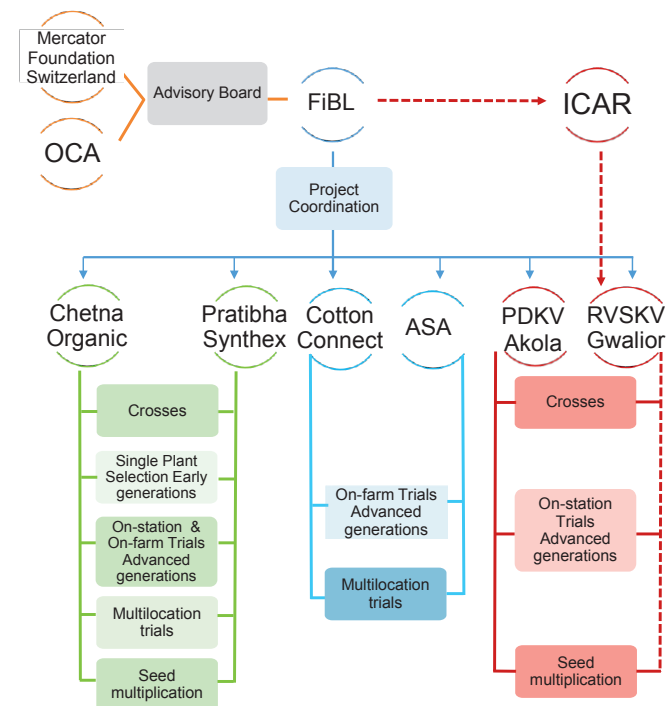
## Seeding the Green Future Project Approach



## Why Does it Matter?

- 67% of the global organic cotton is produced in India. Less than 2% of this cotton is organic, while genetically modified Bt cotton reached 95% in less than 10 years.
- Public breeding and seed multiplication were neglected.
- Local non-GM seeds supply were eroded.
- High dependency on a global seed company holding a Bt licence resulting in high seed prices and concentration on high input agriculture (high levels of fertilizer, pesticide and water use).
- Limited interest of commercial seed companies in non-GM cotton due to higher production risks, risk of Bt contamination and low demand.
- Breeder's seed has already been contaminated with Bt, causing contamination throughout the value chain and withdrawal of organic certification.

## Project Governance, Activities and Partners



The project aims to scale up participatory cotton breeding by empowering farmers through collaboration with researchers, breeders, seed companies, advisors, and the textile industry.