



Project Presentation on

# Development of “Model Fruit Farm” for sustainable livelihood through Innovative Fruit Cultivation”

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**Grey2Greens Foundation**

Community-led regenerative agroforestry initiatives

# Who we are

**Grey2Greens Foundation** is committed to restoring degraded lands and reviving lost biodiversity. We create thriving, green ecosystems through science-based plantation programs and community-driven restoration. We revive native plant species, rebuild soil health, and create community-led green spaces that strengthen rural livelihoods and ecological balance.

## Our Mission & Mandate

- Restore degraded lands through community-led native species plantations
- Promote nutrition security with low-input, sustainable crop cultivation models
- Empower rural families through livelihood-focused orchard and ecosystem development
- Create climate-resilient green corridors along highways and community lands



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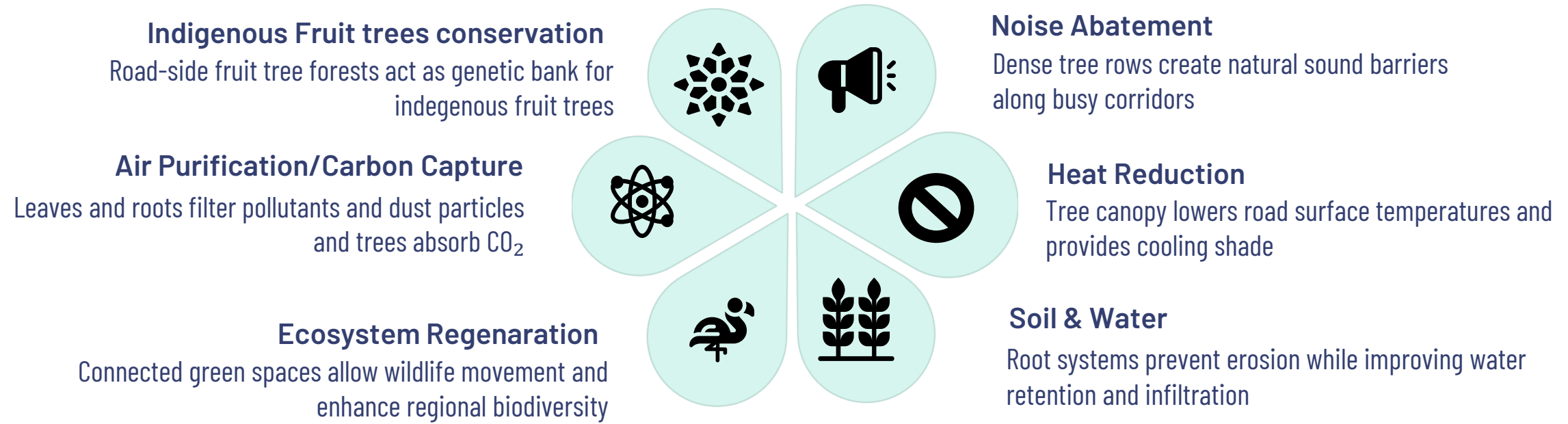




# Our Primary Objective: Highway Fruit Tree Corridors – A Sustainable Green Infrastructure Model

Planting systematic fruit tree corridors along national highways can transform unused roadside lands into productive green assets.

**Grey2Greens Foundation**, in partnership with NHA and local communities, can lead this ecological and livelihood-enhancing initiative



## Multidimensional Benefits of Highway Fruit Forests

**Economic & Social Transformation in line with UN SDGs**

Direct Income	Food Security	Livelihood Creation	Enhanced Wellbeing
Harvesting and selling fruits create sustainable revenue for local communities	Fresh, nutritious produce supports rural nutrition and local food systems	Jobs in nursery management, planting, maintenance, and fruit collection	Beautiful green corridors improve mental health for travelers and residents alike

Promoting GOI's Vocal-for-Local vision

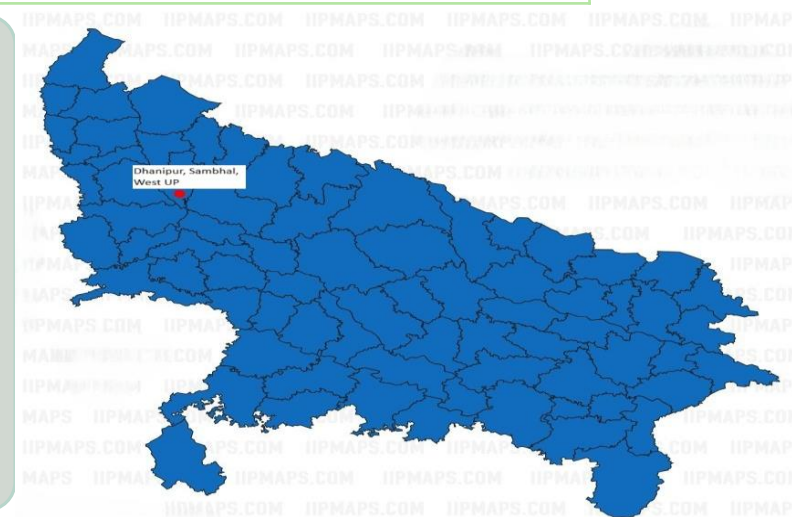
# Introduction to project



<b>Lead applicant : Grey2Greens Foundation</b>		<b>Associated Partner: eEco Solutions Social Foundation</b>	
<b>Target Area:</b> Western UP	<b>District:</b> Sambhal, UP	<b>Block:</b> Junawai	<b>Primary Villages:</b> Dhanipur, Berpur
<b>Total Coverage:</b> 20 hectares across demonstration plots and community orchards		<b>Beneficiaries Impacted:</b> 1500-2000	

## Problem Statement & Justification

- Fruits remain **scarce and costly**, keeping them out of reach for rural families.
- Traditional orchards need **large fertile land** : something small farmers rarely have.
- The opportunity lies in growing hardy fruit trees on wastelands, bunds, community plots, forest edges, rooftops, and even roadside strips.
- Reviving the **lost diversity** of native fruit trees can restore both ecology and local heritage.
- Resilient species like **Jamun, Sapota, Mulberry, Karonda, Pomegranate, Dragon Fruit, and Passion Fruit** thrive with low inputs and strong market value.
- Diversified fruit systems provide steady income and harvests across seasons.



## Strong Community Foundation

- Initial field visits confirm **strong farmer interest** in diversified orchards and availability of suitable unused community land.
- Local panchayats, farmer groups, SHGs, FPOs, and Anganwadi centres are committed partners ready to support implementation.
- Farmers showed strong interest in diversified orchards and intercropping models.
- High potential for nutrition improvement and income diversification through multi-tier fruit system.

## Critical Gaps

- ❖ Minimal adoption of fruit-based agroforestry systems
- ❖ Lack of diversified orchards limiting year-round availability
- ❖ Poor access to quality planting materials
- ❖ Insufficient technical support for farmers



# Project Overview



## 1. Improved Fruit Access

- Ensure low-income families and nutritionally vulnerable households have consistent access to diverse, fresh fruits through localized cultivation systems

## 2. Promote Sustainability

- Implement low-input agroecological methods, integrate mixed fruit species, and encourage conservation of locally adapted varieties for environmental health

## 3. Build Community Systems

- Establish village-level nurseries, community orchards, homestead gardens, and school/anganwadi nutrition gardens driven by local ownership

## 4. Create Resilient Models

- Develop orchard plus intercrop systems that ensure year-round fruit production and income generation even during challenging seasons

## 5. Strengthen Capacity

- Train farmers, youth, and women through demonstration-based learning, farmer field schools, and hands-on skill development program

## 6. Promoting Entrepreneurship

- Support SHGs and FPOs in processing, packaging, and marketing value-added fruit products to create sustainable local enterprises and stronger market linkages.



# Methodology and implementation approach



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## Site Selection & Characterization

- Identify unconventional sites
- Conduct baseline soil & water survey
- Classify sites (rural / peri-urban / urban)

## Selection of Fruit Tree Species & Intercrops

- Choose species based on agro-climate & land type
- Identify compatible intercrops
- Develop site-specific cropping patterns

## Design & Establish Experimental Models

- Establish demonstration plots
- Distribute saplings & inputs
- Apply site-specific planting models
- Integrate intercropping & record resource-use

## Capacity Building of Farmers

- Training on pruning, canopy mgmt., plant health
- Training on drip irrigation, fertigation, mulching
- Demonstrations on nutrient/IPM practices
- Promote water harvesting & low-cost technologies
- Hands-on orchard management workshops

## Data Collection & Monitoring

- Monitor tree growth parameters
- Record fruit & intercrop yields
- Soil health monitoring (before/after)
- Ecological indicators (biodiversity, carbon, erosion)
- Socio-economic data (costs, returns, participation)

## Evaluation of Outcomes

- Compare unconventional vs. conventional models,
- Cost-benefit & resource-use analysis
- Assess nutritional & year-round fruit availability

## Documentation & Dissemination

- Prepare case studies & technical reports
- Participatory evaluation with communities
- Develop manuals, modules etc
- Disseminate via workshops, demos & digital platforms



# Methodology and implementation approach

## Community & Field Systems

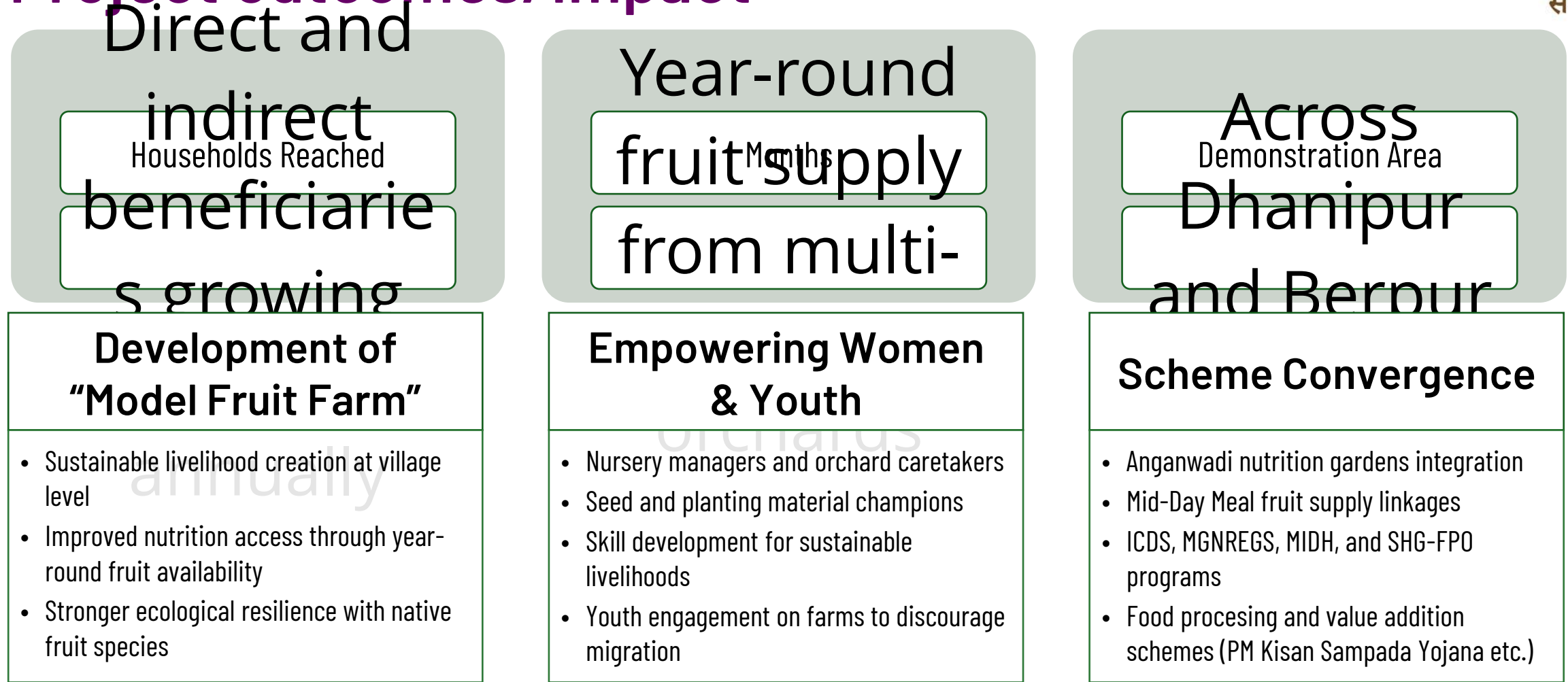
- **Community Selection:** Target SHGs, FPOs, youth groups, anganwadi clusters, and marginal farmers; identify pilot farming families.

## Agroecological Best Practices

- **Soil Health Management:** Composting, mulching, biofertilizers, organic amendments for long-term soil fertility.
- **Water Conservation:** Low-

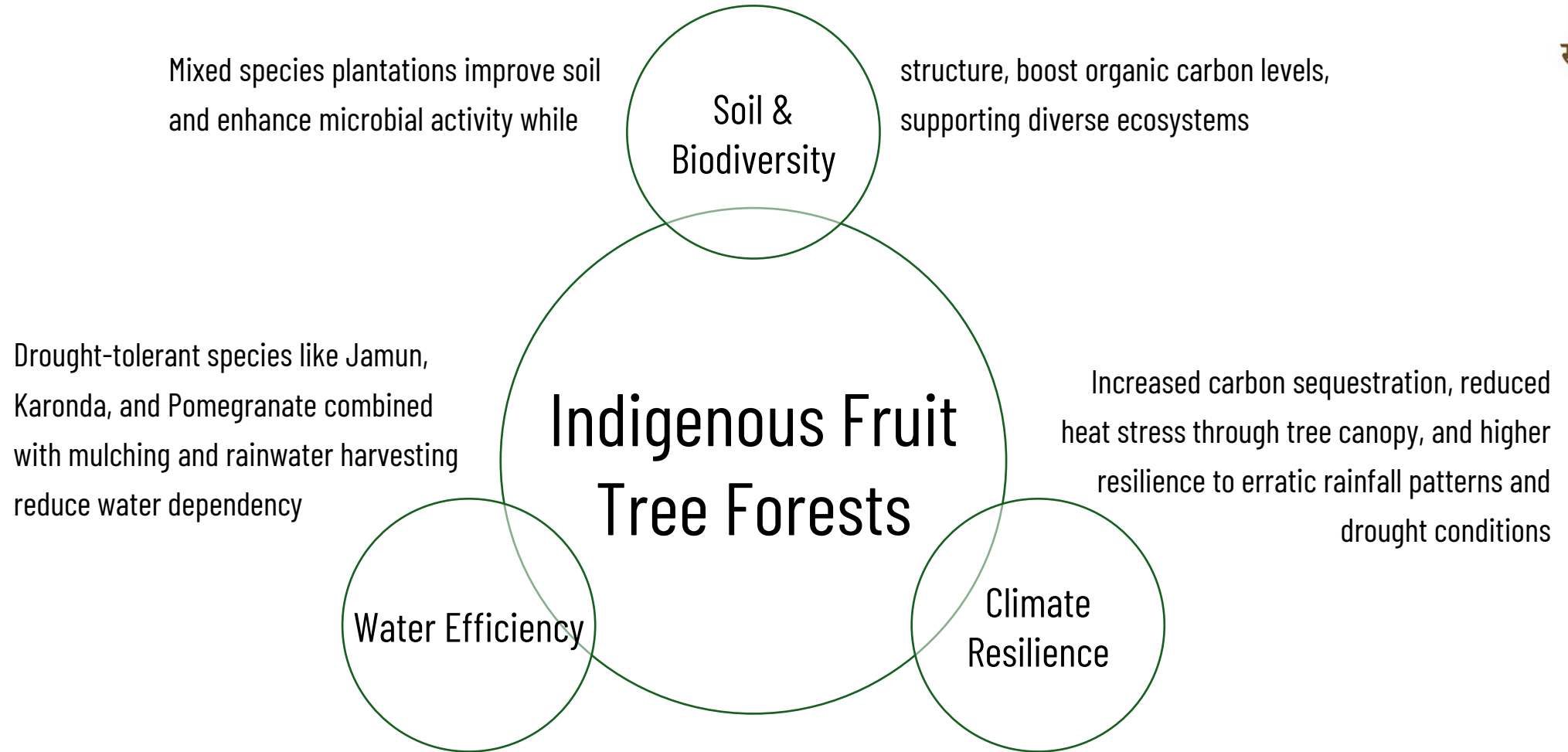
- Site selection, baseline surveys, nursery preparation, intercropping, canopy shaping, IPM, drip irrigation, yield assessment, rainwater harvesting pits, value-add pilots, SHG nurseries, train nursery managers, and ensure

# Social and nutrition impact pathway – Project outcomes/Impact



**Expected outcome:** Reduced household fruit expenses through home-grown and community-grown produce, improving nutrition access for vulnerable populations

# Environmental and climate advantages



**Additional Benefits:** *Reduced land degradation, promotion of green belts, and microclimate improvement in villages through strategic tree placement and species diversification*



# Scaling, sustainability and cost efficiency:



## Community Structures for Sustainability

- Village Orchard Committees
- Women-led nurseries
- SHGs and FPOs support for collective marketing of fruits and inter-crops
- Community agreements for grazing protection and orchard maintenance



## Scalability

- Model can be replicated in adjacent villages/blocks (Hasanpur, Bahjoi, Gunnaur)
- Use of bunds and community land makes expansion easy and low-cost



## Cost Efficiency & Convergence

- Leveraging government schemes:
- MIDH (saplings, drip irrigation)
- MGNREGS (pit digging, fencing, compost pits)
- ICDS & Mid-Day Meal for nutrition integration
- SHGs and FPOs schemes for market linkage

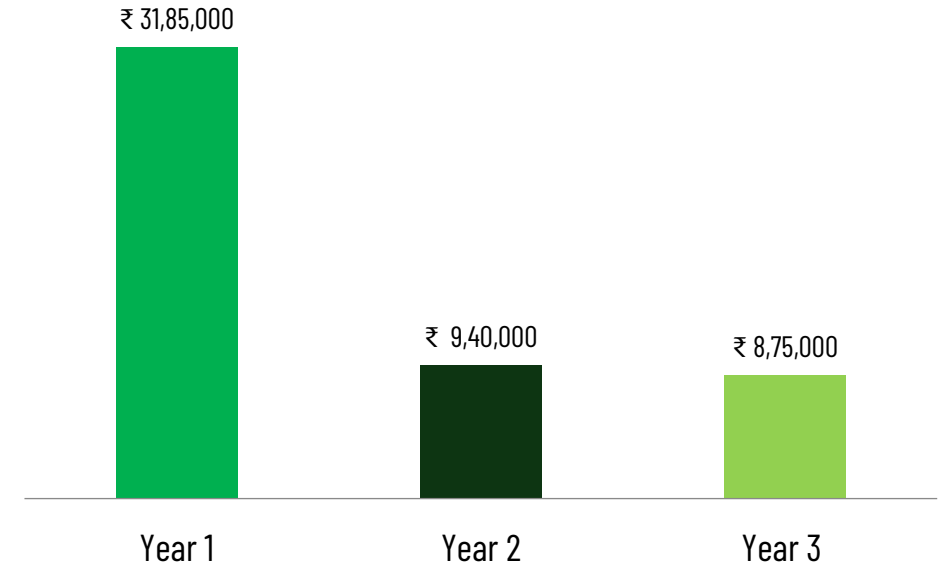


# Budget summary and risk and mitigation strategy:

Total project budget for 20 hectares over three years: ₹50,00,000

SNo.	Particulars	Rate per ha (₹)	For 20 ha (₹)	Year 1 (₹)	Year 2 (₹)	Year 3 (₹)	Net (₹)
1	Planting material (150 grafted saplings @ ₹200)	30,000	6,00,000	6,00,000	-	-	<b>6,00,000</b>
2	Intercrop	11,000	2,20,000	-	1,10,000	1,10,000	<b>2,20,000</b>
3	Plant protection (organic/bio pesticides, traps)	7,000	1,40,000	65,000	65,000	10,000	<b>1,40,000</b>
4	Irrigation (Drip system)	75,000	15,00,000	10,00,000	2,50,000	2,50,000	<b>15,00,000</b>
5	Fencing (Green fencing)	20,000	4,00,000	3,00,000	50,000	50,000	<b>4,00,000</b>
6	Land prep, pit digging, planting labour	30,000	6,00,000	4,80,000	60,000	60,000	<b>6,00,000</b>
7	Capacity building & outreach	7,000	1,40,000	80,000	30,000	30,000	<b>1,40,000</b>
8	Honorarium	8,000	1,60,000	50,000	55,000	55,000	<b>1,60,000</b>
9	Technical supervisor	18,000	3,60,000	1,20,000	1,20,000	1,20,000	<b>3,60,000</b>
10	Monitoring, evaluation & documentation	12,000	2,40,000	80,000	80,000	80,000	<b>2,40,000</b>
11	Administrative cost @ 15%	32,000	6,40,000	4,10,000	1,20,000	1,10,000	<b>6,40,000</b>
Total		2,50,000	50,00,000	31,85,000	9,40,000	8,75,000	<b>50,00,000</b>

Year-wise Cost Distribution



*Year 1 intensive setup costs decrease significantly in Years 2-3 as trees mature and systems stabilize, ensuring long-term sustainability.*

## Risk Management

- **Seedling mortality:** Hardy species selection, regular watering, mulching protocols
- **Drought & heat:** Drip irrigation, rainwater harvesting, moisture conservation
- **Grazing damage:** Live fencing, community guards, thorny boundary species
- **Pest outbreaks:** IPM practices, bio-pesticides, monitoring systems
- **Community ownership:** Village committees, women/youth groups, incentives



# Thanks



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