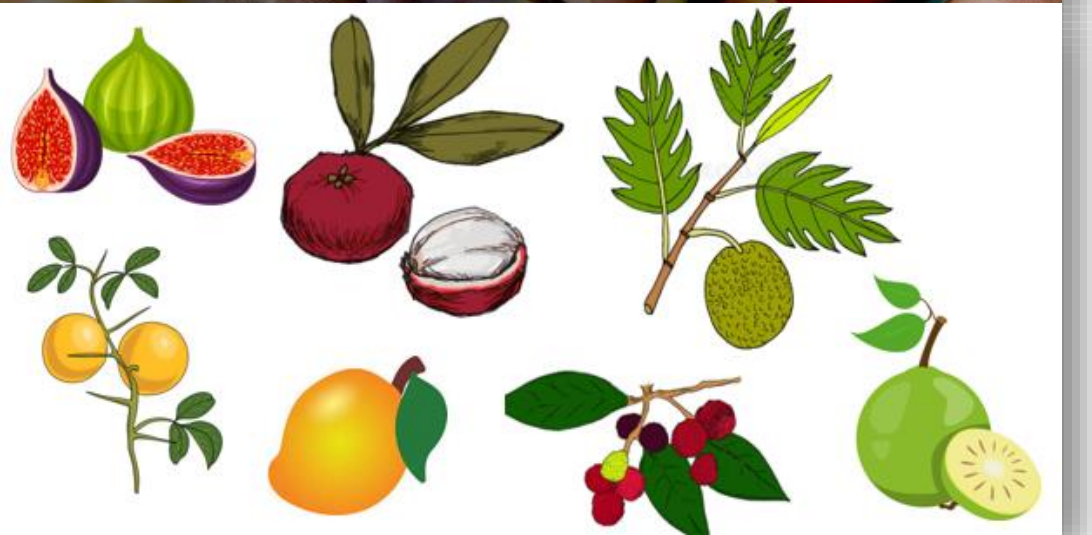

Unconventional Modes of Growing Fruit Tress that Makes Efficient use of Land Planting on Wasteland, Field Bunds, Community Land

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1. Introduction to project:

Project Title: *Unconventional Modes of Growing Fruit Trees for Efficient Land Use – Planting on Wasteland, Field Bunds, and Community Land*
Lead Organization: Gram Chetna Kendra, Jaipur Rajasthan
Major Partners:
•**SKN Agriculture University, Jobner** – Technical and scientific support
•**District Agriculture & Horticulture Departments** – Field coordination and scheme convergence
Target Area:
Sambhar Region, Jaipur District, Rajasthan
Problem Statement & Justification
•Low-income households face nutritional insecurity and limited fruit access, especially for women and children.
•Locally adapted fruits like Lemon, Ber, Moringa, and Pomegranate are underutilized despite thriving in semi-arid conditions.
•**Gaps:** Low adoption of fruit trees and consumptions, limited technical guidance, high post-harvest losses (30–40%), weak value chains, and poor market access.
•**Justification:** Efficient use of wastelands, field bunds, and community lands for fruit cultivation can enhance nutrition, generate income, and improve ecological health.
Evidence / Field Experience
•GCK and its partenrs have successfully implemented fruit plantation, water harvesting, and vermicompost initiatives in Sambhar lake villages.
•Women farmers managing community orchards and agriculture have shown improved crop diversity and income.
•Field experience demonstrates strong community demand and feasibility for expanding fruit-based agro-ecological systems.

2. Project Objectives:

1. Increase Fruit Access and Consumption:
•Establish 150 household nutrition gardens and 4 community orchards by 2027.
•Achieve a 70% increase in regular fruit consumption among participating households, particularly women and children.
2. Reduce Post-Harvest Losses:
•Set up 5 women-led farmer producer groups (drying, pickling, juicing, powdering).
•Achieve a 30% reduction in post-harvest fruit losses through improved handling and local processing.
3. Promote Sustainable Cultivation Practices:
•Train 750 women farmers on agro-ecological and water-efficient techniques (vermi composting, organic inputs, rainwater harvesting).
•Ensure 60% of participating farmers adopt at least two sustainable practices by project end.
4. Conserve Fruit Tree Diversity and Optimize Land Use:
•Plant 3,000 fruit saplings (Lemon, Ber, Moringa, Pomegranate) on wastelands, field bunds, and community land.
•Achieve a minimum 80% plant survival rate across all sites.
5. Enhance Women's Income and Market Access:
•Support 300 women through SHGs and producer groups to engage in processing and marketing.
•Enable a 20–25% increase in average monthly income from fruit-based value-added products.

3. Methodology and implementation approach(1):

Approach 1: Community-Led Sustainable Fruit Cultivation

This approach focuses on mobilizing local women farmers and communities to adopt sustainable fruit-based farming models that integrate nutrition, livelihood, and ecology.

1.Baseline Survey and Site Identification:

Conducted in 15 villages to identify suitable households and common lands for fruit cultivation, ensuring inclusion of low-income and nutritionally vulnerable families.

2.Nursery Development and Sapling Production:

Establish community nurseries producing 3,000 quality saplings of Ber, Lemon, Pomegranate, and Moringa to promote local propagation and self-sufficiency in planting material.

3.Beneficiary Training and Capacity Building:

Organize eight training programs for 750 women farmers covering nursery management, orchard care, organic inputs, and fruit-based value addition.

4.Vermicompost and Organic Input Promotion:

Construct 60 vermicompost units to encourage low-input farming, improve soil fertility, and ensure long-term sustainability of orchards.

5.Community Orchard Development:

Develop four orchards on common lands to serve as demonstration sites for integrated farming, agroforestry, and collective ownership.

3. Methodology and implementation approach(2):

Approach 2: Nutrition, Value Addition, and Market Linkages

This approach ensures that fruit cultivation directly contributes to household nutrition and women's income generation through value addition and market access.

1.Medicine Distribution for Sapling Survival:

Supply organic plant protection materials to 150 farmers to maintain over 80% sapling survival and reduce disease incidence.

2.Nutritional Profiling and Awareness Programs:

Conduct eight awareness sessions with ASHA, Anganwadi, and SHG members on nutrition and the role of fruit in balanced diets, linking fruit consumption with health outcomes.

3.Women-led Processing and Marketing Units:

Facilitate five small-scale processing units for drying, juicing, and pickling of surplus produce, reducing post-harvest losses by 30% and enhancing household income.

4.Community Mobilization and Convergence:

Conduct four awareness drives to connect beneficiaries with relevant government schemes on horticulture, water, and solar energy, ensuring resource convergence and sustainability.

Unconventional modes of growing fruit trees that make efficient use of land planting on wasteland, field bunds, community land, forest fringes

Sr. No	Activity	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
1	Baseline Survey & Site Identification	✓							
2	Nursery Development	✓	✓	✓	✓				
3	Beneficiaries Capacity Building & Training		✓	✓	✓	✓	✓	✓	✓
4	Medicine Distribution		✓	✓	✓	✓	✓	✓	✓
5	Vermi Compost Construction		✓	✓	✓	✓			
6	Community Orchards Development			✓	✓	✓	✓	✓	✓
7	Community Mobilization & Awareness		✓	✓	✓	✓	✓	✓	✓
8	Nutritional Profiling for ASHA, Anganwadi & SHGs			✓	✓	✓	✓	✓	✓
9	Liaison with Health & Horticulture Department		✓	✓	✓	✓	✓	✓	✓
10	Module Development for Nutritional Importance & IEC Material			✓	✓				
11	Project Stationery	✓	✓	✓	✓	✓	✓	✓	✓
12	Contingency Fund	✓	✓	✓	✓	✓	✓	✓	✓
13	Program Coordination & Management	✓	✓	✓	✓	✓	✓	✓	✓
14	Research & Technical Support	✓	✓	✓	✓	✓	✓	✓	✓
15	Field Mobilization	✓	✓	✓	✓	✓	✓	✓	✓
16	Travel & Field Visits	✓	✓	✓	✓	✓	✓	✓	✓

6.Social and nutrition impact pathway – Project outcomes/Impact:

• Around **150 households** will grow fruits annually through home gardens and community orchards.

• **Fruit availability and intake** are expected to increase by **60–70%**, leading to better dietary diversity among women and children.

• **Out-of-pocket expenditure on fruits** will reduce by **up to 40%** through local and sustainable production.

• **Women and youth** will be actively involved as nursery managers, orchard caretakers, and “plant champions,” strengthening community leadership and entrepreneurship.

• The project will ensure **strong convergence with government schemes** such as *Poshan Abhiyaan* and *ICDS* to promote fruit-based nutrition among women and children. It will also align with the *Mid-Day Meal Scheme (PM POSHAN)* by linking local orchards for fruit supply in schools, National Horticulture Mission (NHM) and with *MGNREGA* for land development and orchard maintenance.

Slide 6. Environmental and climate advantages

• The project promotes **soil health and biodiversity** by introducing mixed fruit species such as *Ber, Lemon, Moringa,* and *Pomegranate*, all adapted to semi-arid local conditions. These species improve soil organic matter, reduce erosion, and attract pollinators.

•**Sustainable water use practices** including farm ponds, drip irrigation, and mulching will ensure efficient water utilization and groundwater recharge, helping farmers manage scarce water resources more effectively.

•The adoption of **organic inputs and vermicompost** reduces chemical dependency, improves soil fertility, and enhances the ecosystem's natural balance.

•By cultivating drought-tolerant fruit trees, the project strengthens **resilience against drought and heat stress**, ensuring stable yields even under climate variability.

•The initiative supports **climate change adaptation and mitigation** through increased tree cover, which aids carbon sequestration and reduces land degradation.

•Additionally, the project empowers women farmers as environmental stewards, fostering a **community-driven model of climate-resilient agriculture** in the Sambhar region.

7. Scaling, sustainability and cost efficiency:

•The project will establish strong **community structures** such as *Self-Help Groups (SHGs)*, *orchard management committees*, to ensure long-term maintenance of fruit cultivation after the project period.

•**Champion farmers** will be identified and trained to act as resource persons, guiding neighboring farmers on nursery development, orchard management, and sustainable practices, thereby ensuring knowledge continuity and peer learning.

•The model offers **high potential for replication** in adjacent due to its low-cost, community-driven design and use of locally adapted fruit species suited to semi-arid regions. Demonstration orchards will serve as training and exposure sites to facilitate horizontal scaling.

•The project promotes **cost efficiency and sustainability** by aligning with government schemes such as *Mission for Integrated Development of Horticulture (MIDH)* for sapling and input support, *MGNREGS* for land preparation and irrigation works.

•**Local contributions** through labor, land use, and maintenance responsibilities will enhance ownership, reduce operational costs, and ensure the project's long-term sustainability.

8.Budget summary and risk and mitigation strategy:

Major Cost Head	Activities Included	Budget (INR)
A. Plantation & Nursery Development	Nursery establishment, saplings for 150 households, orchard creation, vermi compost construction	₹12,60,000
B. Capacity Building, Training & Awareness	Beneficiary training programs, community mobilization, nutritional profiling, liaisoning with departments, IEC module & materials	₹2,33,000
C. Human Resource (Staff Salaries & Management)	Program coordinator, research analyst, field assistants, technical support, management cost	₹28,08,000
D. Travel & Field Monitoring	Travel for coordinator & field assistants	₹1,68,000
E. Administrative & Contingency Costs	Stationery, contingency, 5% admin overhead	₹3,17,000
Total Project Cost (2 Years)		**₹43,86,900**

Risk Mitigatino Strategy: To reduce plant mortality, joint monitoring will be done with SKN College experts, supported by soil and water testing, timely manure and irrigation, and replacement of dead saplings.

Alliance
Bioversity & CIAT

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Thanks