
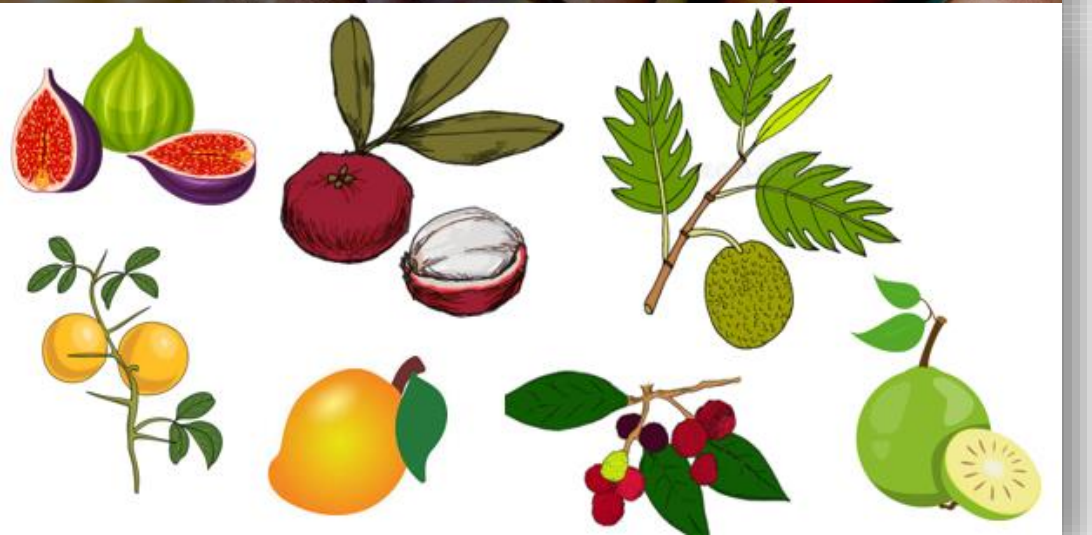

# Pathways to “Eco-Nutrition” and Climate Resilient Livelihoods for Small and Marginal Farmers

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# 1. Introduction to project:

**Project Title –** Pathways to "Eco-Nutrition" and Climate Resilient Livelihood for Small and Marginal Farmers.
**Lead Organisation** – PRAGATI, KORAPUT
**Major Partners** – ICAR- Indian Institute of Water Management

**2. Target area (districts/states/landscape) –**

✓ Koraput District, Odisha, selected villages of Lamtaput Block.

3. **Problem statement and justification –**

✓ Rain-fed, degraded soil, vulnerable to soil erosion
✓ Limited availability of quality planting materials, lack of appropriate technology, and lower rate of adoption.
✓ The local climate and topography are suitable for Agri-Horti and silvicultural practices.
✓ Introduction of appropriate cultivation practices for production and consumption can enhance nutritional security, local economy, and diversify rural livelihoods
✓ Promotion of suitable agricultural practices for the rapid development of fruit tree cultivation, leading to biodiversity restoration.

4. **Brief evidence/field experience demonstrating the need for your proposed research and development initiatives (concise, not heavy on literature)**

Pragati NGO has experience in implementing an agro-ecological model in Sustainable Integrated Farming Systems in the Koraput district, covering ST, SC, and other vulnerable groups, ensuring year-round food and nutritional security, and generating additional income.

# 2. Project Objectives:

- ✓ To evaluate the performance of selected fruit tree species/cultivars under a sustainable integrated farming system model following the QPM nursery.
- ✓ Enhance dietary diversity and food security for the low-income rural households with increased access to a nutritious fruit basket.
- ✓ Find out suitable fruit tree species/cultivars through promotion of organic /natural farming practices. that can withstand climate change challenges.
- ✓ Promotion of community orchards and nutrition gardens involving women and youth to mitigate seasonal migration.

# 3. Methodology and implementation approach(1):

- ✓ Baseline survey and FGDs for selection of landscapes and to identify suitable fruit tree species & companion crops, based on past performance, local needs and preferences.
- ✓ Selection of Small and marginal farmers for the formation of Farmer-Producer Group, emphasising on tribal households, inclusive of women and youth.
- ✓ Developing land-use models like orchards, a sustainable integrated farming system model focusing on mixed fruit agroforestry species and household nutrition gardens.
- ✓ Planning for the establishment of nurseries for Quality Planting Materials (QPM), including sourcing, choosing propagation methods, and ensuring quality control.

# 4. Methodology and implementation approach(2):

- ✓ Awareness creation for agroecological cultivation practices such as SIFS, soil health management, bio-based nutrition and pest management, consumptive use of water resources, intercropping / multi-layer cropping, bio-mulching, focusing to organic and natural farming.
- ✓ Skill development of selected farmers for QPM production, organic/natural farming techniques and awareness on fruit trees cultivation & consumption.
- ✓ Periodic field visit and cluster level meeting to address emerging local issues and the progress as per the project objectives.
- ✓ Regular monitoring and evaluation of the project's outcome and impact on nutrition, income, and environmental sustainability as per the CFI objective and to find out a replicable model that can be adopted in similar agro-climatic conditions.

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

- ✓ Increased participation of women and youth in nursery management, bio-based IPM, bio-based INM, orchard management and nutrition garden.
- ✓ Establishment of 30 numbers of SIFS model through adopting suitable fruit trees under their farming system.
- ✓ 250 households in the targeted villages have increased fruit availability and intake, supplementing nutrition requirements.
- ✓ FPG covering at least 50 % of women and youth is established for the production of QPM, which can cater for the demand of the local areas.
- ✓ Diversification and an increase in income of small and marginal farmers through the introduction of fruit crops.
- ✓ Convergence with the horticulture and forest department for area expansion.

# 6. Environmental and climate advantages

✓ Improved soil fertility and soil health through increased biodiversity with the adoption of natural/organic farming.

✓ Enhanced soil water/ground water retention leading to more crop per drop.

✓ Higher sequestration of carbon leads to better microclimates in the local area, making farming systems more resilient to climate change.

# 7. Scaling, sustainability and cost efficiency:

- ✓ The Farmers Producer Groups will be involved in project implementation(nursery establishment, management, bio based IPM/INM, protection and management of fruit trees) and post-project management.
- ✓ The model can be replicated through farmers' exposures and cross learning in other villages and blocks.
- ✓ The findings of the research will be shared with different stakeholders, including funding partners, ICAR institutes, KVK, Government line departments, and CSOs, which will create opportunities for scale-up and replication.
- ✓ Convergence with Government schemes like MGNREGS, Horticulture, Agriculture, ITDA, soil and water conservation, and ICDS will help in sustainability.
- ✓ Market linkage with Farmer-Producer Companies in the intervention areas and other areas for better price realization.

# 8.Budget summary and risk and mitigation strategy:

**Total Grant Support Requested (CFI) – INR 47,68,000**

- Establishment of model farms, Fruit Tree Plantation in waste lands, orchard, nutrition garden, development of nursery - 21,80,000
- Capacity building and Training Programs, Workshops, school programs, and community seminars, – 6,00,000
- Baseline survey, Programme implementation and monitoring cost, impact survey, Documentation, Consultation cost of Research Professionals – 19,88,000

**Total Community / Other Contribution – 58,12,000**

Establishment of model farms, Creation of dug wells, Installation of Solar Pumps, Community Meeting / Awareness Events, Fruit Tree Plantation in waste lands, orchard, nutrition garden, development of nursery, workshop, Programme implementation and monitoring cost – INR 58,12,000

**Total Project Budget – INR 105,80,000**

**Risks :**

✓ Cloud burst/ prolonged drought-like situations

✓ Open grazing

**Mitigation strategy :**

✓ Creation of irrigation facilities, harnessing existing water resources to provide life-saving irrigation. Provision of drainage channels.

✓ To address the issue of open grazing through extended control grazing and a solar fencing system.

✓ Community ownership will be ensured by their involvement in all stages of project implementation.

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# Thanks

10 Years PRAGATI Koraput