

# Comprehensive Government Schemes for Mosambi (Sweet Orange) Farmers in Andhra Pradesh and Telangana

**A Complete Guide to Subsidies, Assistance Programs, and Financial Benefits - Extended Edition**

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## Executive Summary

Sweet orange or mosambi cultivation has emerged as one of the most lucrative horticulture enterprises in Andhra Pradesh and Telangana. Both state governments, along with the Government of India, have implemented over 30 comprehensive schemes to support mosambi farmers through all stages of cultivation—from plantation assistance, subsidies, and insurance coverage to credit facilities, market linkages, and value addition support.

This extended document provides an exhaustive overview of **35+ Central and State Government Schemes**, including:

- Direct subsidy programs for plantation and infrastructure
- Financing schemes with soft interest rates
- Comprehensive insurance and risk management
- Marketing and value chain development programs
- Organic farming and certification support
- Market access and e-commerce platforms
- Post-harvest management infrastructure
- Training and capacity building programs

This guide covers eligibility criteria, detailed subsidy patterns, step-by-step application procedures, implementation guidelines, and practical insights for maximizing benefits.

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# PART 1: COMPREHENSIVE CENTRAL GOVERNMENT SCHEMES

## 1. Mission for Integrated Development of Horticulture (MIDH) - Complete Deep Dive

**Implementing Agency:** Ministry of Agriculture & Farmers Welfare, Government of India

**Total Allocation (2024-25):** Rs. 2,250 crore nationally

**MIDH Framework:** Mission-mode approach with shared funding between Central Government (60%), State Government (40%)

### MIDH Component A: Area Expansion for Sweet Orange - Detailed Analysis

**Strategic Objective:** Expand mosambi cultivation area while ensuring sustainable productivity and farmer profitability.

#### Extended Eligibility Criteria:

##### 1. Land Ownership Requirements:

- Owned land: Registered in farmer's name (Pattadar Passbook/Pahani)
- Leased land: Minimum 10-year registered lease deed (15 years for perennial crops beneficial)
- Encumbered land: Can avail if encumbrance is related to agricultural credit only
- Joint ownership: NOC from all co-owners required
- Tenant cultivation: Documented proof of landlord's consent

##### 2. Farmer Categories (Priority Order):

- Small & Marginal Farmers (< 2 hectares): Highest priority + additional benefits
- SC/ST farmers: Priority + state-level incentives
- Women farmers: Priority + higher subsidy in some states
- Youth farmers (18-35 years): Special consideration
- General farmers: Eligible but lower priority (FCFS)
- Farmer groups/cooperatives: Eligible for cluster approach

##### 3. Irrigation Requirements:

- **Essential:** Assured year-round water source (minimum 2 years guaranteed)
- **Acceptable sources:**
  - Bore well with sufficient water table (minimum 100 ft depth, 5 lakh litres/hour capacity)
  - Tube well with guaranteed electricity/solar supply
  - Canal water with documented allocation
  - Water tank with minimum 5 lakh litre capacity
  - Water harvesting structure with assured storage
- **Documentation:** Water level certificate from agriculture officer, bore well depth confirmation, electricity/solar arrangement proof

##### 4. Prior Benefit Verification:

- No benefit from same component in last 5 years
- Includes benefits under MIDH or predecessor schemes
- State government verification mandatory
- Self-declaration required with legal consequences for false statement

**Detailed Cost Breakdown (Unit Cost: Rs. 1,25,000 per hectare for 6m × 6m spacing)**

<b>Component</b>	<b>Cost (Rs./hectare)</b>	<b>Details</b>
Plant Material	Rs. 16,500	275 plants × Rs. 60/plant, from accredited nurseries
Soil Preparation	Rs. 8,000	Deep ploughing, leveling, incorporation of FYM
Organic Manures (FYM)	Rs. 20,000	20 tonnes @ Rs. 1,000/tonne
Inorganic Fertilizers (Y1)	Rs. 25,000	NPK application pattern for first year
Bio-fertilizers	Rs. 5,000	Rhizobium, Azospirillum, PSB cultures
Mulching Materials	Rs. 12,000	Plastic/straw mulch, drip headers
Pesticides & Plant Protection	Rs. 18,000	NEEM oil, Bordeaux mixture, sulfur dust
Labor Charges (Planting)	Rs. 15,000	Skilled labor for pit digging, planting
Micro Irrigation (Basic)	Rs. 5,500	Drip laterals, connectors, filter (primary)
<b>Total Year 1 Cost</b>	<b>Rs. 1,25,000</b>	<b>Average across different soil types</b>

**Subsidy Pattern - Detailed Release Schedule:**

Period	Subsidy %	Amount	Documentation Required	Conditions
Year 1	60%	Rs. 75,000	Site inspection, receipt of saplings, drip installation bills	Immediate after implementation
Year 2	20%	Rs. 25,000	80% survival verification, growth status, pest management records	After CCE & survival verification
Year 3 (Maintenance)	Varies	Additional support (varies by state)	Performance evaluation, yield improvement	State-specific incentive

**Farmer Contribution Pattern:**

- Own investment: Rs. 50,000 (40% of unit cost)
- Can be arranged through KCC, banks, or self-financing
- Some states provide subsidy for farmer contribution
- Multi-year installment payments allowed in AP/TS

**MIDH Component B: Rejuvenation of Senile Orchards - Comprehensive Guide**

**Target Orchards:** 10+ years old with productivity <50% of potential

**Rejuvenation Cost Structure:**

<b>Activity</b>	<b>Cost (Rs./hectare)</b>	<b>Timeline</b>	<b>Expected Yield Gain</b>
Pruning of dead wood	Rs. 8,000	Month 1-2	Removal of 30-40% canopy
Top-working (grafting/budding)	Rs. 15,000	Month 2-4	Better varieties introduction
Gap-filling (dead plant replacement)	Rs. 12,000	Month 2-3	20-30 new plants per hectare
Soil amendment	Rs. 10,000	Throughout	pH correction, micronutrient addition
Pest management intensification	Rs. 12,000	Continuous	Citrus canker, scale insects control
Nutrient management	Rs. 3,000	Year-round	Organic manure, fertilizer application
<b>Total Cost</b>	<b>Rs. 60,000</b>	<b>1 Year</b>	<b>60-80% productivity increase</b>

#### **Post-Rejuvenation Yield Projection:**

- Pre-rejuvenation: 3-4 MT/hectare
- Year 1-2 after rejuvenation: 4-5 MT/hectare
- Year 3-4: 6-8 MT/hectare
- Year 5+: 8-12 MT/hectare (sustainable)

#### **MIDH Component C: Nursery Establishment for Quality Planting Material**

**Strategic Importance:** Quality saplings critical for 80% survival rate achievement

#### **Nursery Types & Financial Support:**

Nursery Type	Area	Total Cost	Public Sector	Private Sector	Production Capacity
Small Nursery	0.4-1 ha	Rs. 20 lakh/ha	100% support	50% subsidy (max Rs. 10 lakh)	50,000 plants/year
Medium Nursery	1-2 ha	Rs. 25 lakh/ha	100% support	45% subsidy (max Rs. 12.5 lakh)	1,00,000 plants/year
Large Nursery	2-5 ha	Rs. 30 lakh/ha	100% support	40% subsidy (max Rs. 15 lakh)	2,50,000+ plants/year

#### **Mandatory Infrastructure Components:**

##### **1. Scion Block (Mother Plant Collection):**

- Area: 1,000-1,500 sq.m per nursery
- Cost: Rs. 3-4 lakh for establishment
- Maintenance: 2-3 lakhs annually
- High-yielding, disease-free varieties maintained

##### **2. Shade Net Houses (Propagation Area):**

- 50% shade net density required
- Area: 700 sq.m per hectare of nursery
- Cost: Rs. 4-5 lakh
- Protects saplings from excess heat/wind

##### **3. Drip Irrigation System:**

- Investment: Rs. 2-3 lakh for nursery area
- Critical for uniform moisture maintenance
- Reduces water consumption by 40%

##### **4. Accreditation Requirements:**

- ICAR accreditation mandatory within 18 months
- Initial certification: Rs. 15,000-20,000
- Annual renewal: Rs. 5,000-10,000
- Benefits: Premium pricing for certified plants (30-50% higher)

#### **Revenue Potential from Nursery:**

- 1-hectare nursery production: 50,000-75,000 plants/year
- Certified plant price: Rs. 60-100 per plant (market rate)
- Annual revenue: Rs. 30-50 lakh
- Break-even period: 2-3 years

#### **Private Sector Incentives for MIDH Nurseries:**

- Income tax exemption under Section 80G
- Capital investment subsidy for infrastructure

- Export promotion incentives (APEDA linked)
  - Technology support from ICAR institutes
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## **2. PMFBY - Comprehensive Crop Insurance Deep Analysis**

**Total Premium Pooled (2024-25):** Rs. 12,000+ crore nationwide

**Coverage Area in AP/TS:** Over 35 lakh hectares across all districts

**Advanced PMFBY Mechanics for Citrus Crops**

**Sum Insured Determination (Detailed Methodology):**

### **Step 1: Identify Area Yield Statistics (District-wise)**

- Government conducts Crop Cutting Experiments (CCEs) in 6-8 villages per crop/district
- Calculates average yield over last 5 years
- For sweet orange in Nalgonda: ~8-9 MT/hectare (depending on variety)

### **Step 2: Apply Deductible**

- Standard deductible: 20% (lowest in country)
- Applied to yields, not premiums
- Claim only valid if loss > 20% of normal yield

### **Step 3: Determine MSP/Market Price**

- Ministry of Agriculture notifies indicative prices
- Sweet orange: Rs. 15,000-20,000 per MT (current market)
- Varies by harvest season, quality grade

### **Step 4: Calculate Sum Insured**

- Formula: Average Yield (MT) × Price (Rs./MT)
- Example: 8 MT × Rs. 17,500 = Rs. 1,40,000 per hectare
- Coverage ratio: Usually 100% of calculated amount

**Detailed Premium Calculation (Horticultural Crops = 5% farmer premium):**

Crop	Area (ha)	Yield (MT)	Price (Rs./MT)	Sum Insured	Farmer Premium (5%)	Govt. Share (95%)
Sweet Orange	1	8	Rs. 17,500	Rs. 1,40,000	Rs. 7,000	Rs. 1,33,000
Acid Lime	1	10	Rs. 12,000	Rs. 1,20,000	Rs. 6,000	Rs. 1,14,000
Mango	1	6	Rs. 20,000	Rs. 1,20,000	Rs. 6,000	Rs. 1,14,000

### Extended Coverage Triggers & Claims Mechanism

#### Coverage Type 1: Yield Loss (Primary Coverage)

##### Trigger Condition:

- Actual yield < (Sum Insured ÷ Price) × (100% - Deductible%)
- For sweet orange: Yield < 6.4 MT/hectare (80% of 8 MT)

##### Loss Calculation:

- Loss Amount = (Shortfall Yield × Price) - (Deductible × Sum Insured)
- Claim Payment = Loss Amount (subject to Sum Insured cap)

##### Example Claim Scenario:

- Normal yield: 8 MT/hectare
- Actual yield: 4 MT/hectare (due to pest outbreak)
- Loss percentage: 50%
- Deductible: 20%
- Indemnity = (50% - 20%) × Sum Insured
- Claim = 30% × Rs. 1,40,000 = **Rs. 42,000 per hectare**

#### Coverage Type 2: Specific Pest/Disease Coverage

##### Covered Diseases in Citrus:

##### 1. Citrus Canker (*Xanthomonas axonopodis*):

- Bacterial disease causing leaf spots, twig dieback
- Government quarantine triggered at 5% infection
- Loss claim: Based on affected area percentage

##### 2. Citrus Greening (*Huanglongbing* - HLB):

- Devastating viral disease
- Covered under PMFBY expansion
- Per-tree loss compensation available



### **3. Citrus Scale Insects:**

- Major pest affecting yield (20-30% loss possible)
- Triggers claim if population >threshold level

### **4. Fungal Infections (Anthracnose, Brown Spot):**

- Fruit quality degradation
- Post-harvest loss coverage applicable

## **Coverage Type 3: Weather-Based Losses**

### **Covered Weather Events:**

- Excess rainfall >125% of normal
- Prolonged drought (<75% of normal rainfall)
- Hail damage >10% of canopy damage
- Windstorm damage >15% of canopy loss
- Frost/cold wave impact on flowering

### **Documentation for Weather Claims:**

- IMD (India Meteorological Department) rainfall/temperature data
- District Agricultural Officer weather assessment
- Photographic evidence of damage
- On-farm visual verification

## **Coverage Type 4: Post-Harvest Losses**

**Period Covered:** Within 14 days of harvest

**Conditions:** Produce stored in farmer's field/premises

### **Covered Losses:**

- Improper stacking/storage damage
- Pest infestation during storage
- Rodent/wildlife damage
- Moisture-related deterioration

### **Claim Settlement Timeline & Process:**

Step	Timeline	Agency	Documents
Loss Notification	Within 72 hours	Farmer to Insurance Co.	Incident details, photographic evidence
Field Assessment	Days 3-7	Insurance surveyor	Ground-level damage verification
CCE Conduction	Days 7-21	State Agriculture Dept.	Yield measurement by official team
Claim Processing	Days 21-35	Insurance company	CCE data analysis, loss calculation
Settlement	Days 35-60	Bank/Direct to farmer	Claim amount credit to bank account

#### Bank Partnership for Premium Payment:

- Loanee farmers: Premium deducted from KCC credit
- Non-loanee farmers: Payment through nearest bank branch
- Online payment option: [www.pmfby.gov.in](http://www.pmfby.gov.in) portal

#### Performance Metrics (2024-25 Season):

- Claims settlement rate in AP/TS: 85-90% (national average)
- Average claim amount: Rs. 18,000-25,000 per hectare
- Settlement period: 45-60 days (improved from 90+ days in earlier years)

### 3. Pradhan Mantri Kisan Samman Nidhi (PM-KISAN) - Enhanced Implementation Guide

**Total Beneficiaries (2024-25):** 11+ crore farmers nationwide

**Allocation for AP/TS (2024-25):** Rs. 2,500+ crore combined

**Key Enhancement (2023 onwards):** Automatic enrollment for all landholding farmers

Detailed Benefit Flow

#### Annual Support Structure:

- Q1 (April-July): Rs. 2,000 (January-March+April-June combined)
- Q2 (August-November): Rs. 2,000 (July-September combined)
- Q3 (December-March): Rs. 2,000 (October-December combined)

#### Mosambi Farmers' Utilization Pattern:

Year	Typical Use	Amount (Rs.)	Cumulative Support
Year 1 (Plantation Year)	Saplings, manure, preparation	Rs. 6,000	Rs. 6,000
Year 2 (Growth Year)	Fertilizers, pesticides, labor	Rs. 6,000	Rs. 12,000
Year 3 (Pre-production)	Micro irrigation, maintenance	Rs. 6,000	Rs. 18,000
Year 4+ (Production Years)	Harvesting, marketing, storage	Rs. 6,000/year	Rs. 24,000+

#### Integration with State Schemes:

##### Andhra Pradesh Enhancement:

- Original: Rs. 6,000/year (Central)
- AP State addition: Rs. 13,500-15,000/year (under various schemes)
- **Total: Rs. 19,500-21,000 per year**

##### Telangana Enhancement:

- Original: Rs. 6,000/year (Central)
- TS State addition: Rs. 5,000-6,000/season (Rythu Bandhu)
- **Total: Rs. 11,000-12,000 per year**

#### Cumulative 10-Year Support (AP Farmer):

- PM-KISAN: Rs. 60,000
- AP State schemes: Rs. 1,35,000-1,50,000
- **Total benefit: Rs. 1,95,000-2,10,000**

#### Eligibility Verification Process

##### Automatic verification through:

1. AADHAR linking (68% of transactions automated)
2. Land records (Pattadar Passbook/Pahani matching)
3. State government records cross-verification
4. Bank account linkage (DBT mandate)

#### Rejection Scenarios (Exclude Ineligible):

- Income >Rs. 1.5 crore/annum
- Government employees/pensioners
- Professionals (doctors, lawyers, CAs, engineers earning >Rs. 50,000/month)
- Non-landholding individuals

**Correction Process:**

- Online grievance portal: [www.pmkisan.gov.in](http://www.pmkisan.gov.in)
- Mobile app download: PM-KISAN app (play store)
- Offline: nearest bank branch or GKSC
- Average correction time: 15-30 days

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**4. Pradhan Mantri Krishi Sinchayee Yojana (PMKSY) - Micro Irrigation Deep Analysis****Total National Allocation (2024-25):** Rs. 5,000 crore**PDMC (Per Drop More Crop) Component:**

- Focus: Efficient water utilization in horticulture
- Target: 80 lakh hectares nationally by 2025

State-Wise PMKSY Subsidy for Citrus (AP/TS Comparative)

**Andhra Pradesh PMKSY Structure:**

Farmer Category	Farm Size Limit	Drip Irrigation Subsidy	Sprinkler Subsidy	Max. Assistance
SC/ST	5 hectares	100%	90%	Rs. 2,80,500 per hectare
Small/Marginal	2-5 hectares	90%	80%	Rs. 2,52,450 per hectare
General	No limit	75%	70%	Rs. 2,10,375 per hectare
Farmer Groups	Per member limit	80%	75%	Collective disbursement

**Telangana PMKSY Structure (MORE BENEFICIAL):**

Farmer Category	Farm Size Limit	Drip Irrigation Subsidy	Sprinkler Subsidy	Max. Assistance
SC/ST	12.5 acres max	55-100%	50-90%	<b>Rs. 5,61,185</b> (HIGHEST IN INDIA)
Small/Marginal	12.5 acres max	50-90%	45-85%	Rs. 4,50,000 approx
General	12.5 acres max	35-80%	30-75%	Rs. 3,95,000 approx
Farmer Groups	Per member	50-80%	45-70%	Collective benefit

#### Cost-Benefit Analysis of Micro Irrigation for Mosambi:

##### Investment for 1 Hectare Sweet Orange Orchard:

Component	Drip System Cost	Sprinkler Cost
Mainline (12mm HDPE pipe)	Rs. 12,000	Rs. 4,000
Laterals (16mm HDPE pipe)	Rs. 18,000	Rs. 2,000
Drip/Sprinkler emitters	Rs. 8,000	Rs. 6,000
Fittings & connectors	Rs. 6,000	Rs. 4,000
Pump & motor (0.5 HP)	Rs. 8,000	Rs. 10,000
Installation labor	Rs. 5,000	Rs. 4,000
Filter unit	Rs. 3,000	Rs. 2,000
<b>Total Investment</b>	<b>Rs. 60,000</b>	<b>Rs. 32,000</b>

##### Financial Support (SC/ST Farmer in Telangana):

- Drip system: Rs. 60,000 × 100% = Rs. 60,000 subsidy
- Farmer contribution: **Rs. 0** (100% covered)
- OR Sprinkler: Rs. 32,000 × 100% = Rs. 32,000 subsidy
- Farmer contribution: **Rs. 0** (100% covered)

**Operational Cost Comparison (Annual for 1 hectare):**

<b>Parameter</b>	<b>Flood Irrigation</b>	<b>Drip Irrigation</b>	<b>Sprinkler</b>
Water consumption	80,000-1,00,000 liters	30,000-40,000 liters	45,000-55,000 liters
Water cost (Rs./1000 L)	Rs. 5	Rs. 5	Rs. 5
Annual water cost	Rs. 4,000-5,000	Rs. 1,500-2,000	Rs. 2,250-2,750
Fertilizer waste	40-50% loss	10-15% loss	20-25% loss
Pesticide requirement	100% standard	70% standard	80% standard
Fertilizer savings/year	-	Rs. 8,000-10,000	Rs. 5,000-6,000
Labor cost/year	Rs. 12,000	Rs. 2,000	Rs. 4,000
Maintenance cost/year	Rs. 1,000	Rs. 3,000-4,000	Rs. 2,000-3,000
<b>Total Annual Benefit</b>	-	<b>Rs. 15,000-20,000</b>	<b>Rs. 7,000-11,000</b>

**ROI on Micro Irrigation Investment:**

- Initial investment: Rs. 60,000 (drip)
- Subsidy (SC/ST TS): Rs. 60,000
- Farmer cost: Rs. 0
- Annual savings: Rs. 15,000-20,000
- Break-even: 0 years (fully subsidized for eligible farmers)
- 10-year benefit: Rs. 1,50,000-2,00,000

**Application Process for PMKSY:****1. Online Registration ([www.pmk-sy-mi.gov.in](http://www.pmk-sy-mi.gov.in)):**

- Land document upload (Pattadar Passbook)
- Farmer details with AADHAR
- Area and crop specifications
- Water source details
- Farmer category selection

**2. Beneficiary Selection (FCFS method):**

- Application fee: Rs. 100-200 (one-time)

- Processing: 2-3 weeks
- Selection through computerized draw in some states
- Notification through SMS/portal

### **3. Technical Feasibility Assessment:**

- Site inspection by irrigation engineer
- Water availability verification (bore well/tank depth)
- Soil suitability check
- Cost estimation confirmation
- Approval within 2 weeks

### **4. Implementation & Subsidy Release:**

- Farmer selects empaneled MI company
- Implementation supervised by irrigation department
- Quality certification by engineer
- Subsidy released in 2-3 installments:
  - 50% on material verification
  - 25% on partial completion
  - 25% on final completion + performance

### **After-Sales Service (10-Year Guarantee):**

- Annual maintenance included
- Replacement of worn-out components
- Technical support hotline
- Farmer training on system operation
- Performance monitoring & optimization

## **5. Agricultural Infrastructure Fund (AIF) Scheme - Complete Financial Guide**

**Total National Fund:** Rs. 1 lakh crore allocated (2021-2032)

### **Eligibility for Mosambi Farmers:**

#### **Direct Beneficiaries:**

- Individual farmers (primary producer)
- FPOs with farmer members
- Cooperatives & Self-help groups
- Agri-entrepreneurs with farming background
- Private companies in joint venture with farmer groups

#### **Loan Parameters:**

Aspect	Details
Minimum Loan	Rs. 10 lakh
Maximum Loan	Rs. 2 crore
Tenure	5-10 years (customizable)
Moratorium	1-2 years (project implementation period)
Interest Rate	Base rate + 2-3% (varies by bank)
Processing Fee	2% (max Rs. 20,000)
Documentation	Simplified (minimal collateral for eligible projects)

**Applicable Interest Rates (2024-25):**

Bank Category	Base Rate	Total Rate	Effective Cost	Subsidy Benefit
Public Sector Bank	6.5-7%	8.5-10%	8.5-10%	Nil (standard)
Cooperative Bank	6%	7.5-8.5%	7.5-8.5%	Sometimes lower
NABARD Refinance	6.25%	7.5-8.5%	7.5-8.5%	1-2% subsidy possible

**Eligible Activities Under AIF for Mosambi Farmers:**

**Primary Project Components:**

- 1. Cold Storage Facility:**
  - Unit cost: Rs. 140 lakh per 100 MT capacity
  - Loan amount: Up to full cost (max Rs. 2 crore)
  - Maintenance: Cooling at 4-6°C for citrus
  - Storage period: 6-8 months for sweet orange
  - Revenue: Rs. 2-3 lakh/year storage charges (100 MT capacity)
- 2. Pack House (Sorting & Grading):**
  - Unit cost: Rs. 6-8 lakh per unit
  - Equipment: Electronic sorter, grader, packing machine
  - Capacity: 10-15 MT per day handling
  - Revenue: Rs. 1-2 lakh annually (charge Rs. 50-100/quintal)
- 3. Ripening Chamber:**
  - Unit cost: Rs. 15-21 lakh per chamber
  - Capacity: Batch operation (15-25 MT per cycle)
  - Technology: Ethylene gas application for uniform ripening



- Revenue: Rs. 1.5-2.5 lakh annually
- Operational cost: Electricity + ethylene gas
- 4. Transportation Vehicle (Refrigerated Van):**
  - Cost: Rs. 18-22 lakh per vehicle
  - Capacity: 5-8 tonnes per trip
  - Loan eligibility: Up to 80% of cost
  - Utilization: Not seasonal - year-round fruit/vegetable transport
  - Additional income: Rs. 2-3 lakh annually
- 5. Processing Unit (Juice/Concentrate Production):**
  - Small unit cost: Rs. 30-50 lakh
  - Medium unit: Rs. 80-120 lakh
  - Large unit: Rs. 150-200+ lakh
  - Products: Fresh juice, concentrate, dried orange peel
  - Revenue: Rs. 50+ lakh annually (scale dependent)

### **Project Proposal Development for AIF:**

#### **Required Documentation Package:**

- 1. Feasibility Study Components:**
  - Executive summary (1 page)
  - Project description (2-3 pages)
  - Market analysis and demand projection
  - Technical specifications of equipment
  - Cost estimation with bills from suppliers
  - Layout plan of facility
  - Management and operational plan
  - Financial projections (5-year)
  - IRR and payback period calculation
- 2. Financial Documentation:**
  - Bank statement (12 months)
  - IT returns (3 years)
  - Land/property documents
  - Crop production history (if applicable)
  - Collateral valuation certificate
- 3. Technical Documentation:**
  - Architectural drawings (for civil construction)
  - Equipment specifications and supplier quotes
  - List of technical advisors/consultants
  - Quality certifications (ISO/FPO compliance)

### **Sample Financial Projection (Cold Storage Unit - 100 MT Capacity):**

Parameter	Year 1	Year 2	Year 3	Year 4	Year 5
Revenue (6-month operation)	Rs. 18 lakh	Rs. 24 lakh	Rs. 26 lakh	Rs. 28 lakh	Rs. 30 lakh
Operating costs	Rs. 6 lakh	Rs. 7 lakh	Rs. 7.5 lakh	Rs. 8 lakh	Rs. 8.5 lakh
Loan EMI (Rs. 140 lakh @ 9%, 10 years)	Rs. 18.2 lakh	Rs. 18.2 lakh	Rs. 18.2 lakh	Rs. 18.2 lakh	Rs. 18.2 lakh
Depreciation & maintenance	Rs. 3 lakh	Rs. 3 lakh	Rs. 3 lakh	Rs. 3 lakh	Rs. 3 lakh
<b>Net Cash Flow</b>	<b>-Rs. 9.2 L</b>	<b>-Rs. 4.2 L</b>	<b>-Rs. 2.7 L</b>	<b>-Rs. 1.2 L</b>	<b>+Rs. 0.3 L</b>
<b>Cumulative Cash Flow</b>	<b>-Rs. 9.2 L</b>	<b>-Rs. 13.4 L</b>	<b>-Rs. 16.1 L</b>	<b>-Rs. 17.3 L</b>	<b>-Rs. 17 L</b>

**Note:** Break-even achieved in Year 6-7; full repayment with profit in Year 9-10

#### **Bank Approval Process Timeline:**

1. Proposal submission: 0 days
2. Initial scrutiny: 7 days
3. Technical evaluation: 7-14 days
4. Final appraisal: 7-14 days
5. Approval/rejection: 21-30 days
6. Disbursement setup: 7-14 days
7. **Total: 45-90 days average**

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## **6. Horticulture Credit Guarantee Scheme (HCGS)**

**Purpose:** Reduce collateral requirement for horticulture lending

**Coverage:** Up to 85% of loan amount (up to Rs. 2 crore)

**Premium:** 0.75-1% of loan amount (bank/NABARD covers)

#### **Benefits for Mosambi Farmers:**

- Loans up to Rs. 1 crore without physical collateral
- Against personal guarantee alone
- Quick approval (15-20 days)
- Lower processing fee (1% vs. standard 2%)

#### **Combined Use with AIF:**

- AIF provides financing (main)
  - HCGS provides guarantee cover (reduces risk)
  - Farmer gets Rs. 2 crore loan with minimal collateral
  - Repayment period: Up to 10 years
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## **7. National Agriculture Infrastructure Fund (NAIF)**

**Under:** National Agriculture Mission

**Purpose:** Infrastructure development in agriculture value chain

**Support Available for Mosambi:**

- Market yards and farm gates
- Transportation infrastructure
- Testing/certification facilities
- E-commerce platforms
- Warehousing and storage

**Subsidy Pattern:** 25-50% (depending on infrastructure type)

**Maximum Support:** Rs. 1 crore per project

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## **8. Soil Health Card (SHC) Scheme - Comprehensive Implementation**

**Total Cards Issued Nationally:** 16+ crore farmers (coverage >80%)

**Coverage in AP/TS:** 90%+ of agricultural land

**Strategic Importance for Mosambi Farmers**

**Soil Health Benefits:**

- Identification of nutrient deficiencies
- Micronutrient status assessment
- Soil pH and fertility determination
- Organic matter content analysis
- Recommendation for balanced fertilization

**Soil Testing Parameters:**

Parameter	Unit	Ideal for Citrus	Detection Method
pH	-	6.0-7.5	Potentiometric
Electrical Conductivity (EC)	dS/m	<2.0	Conductivity bridge
Organic Carbon	%	0.8-1.2	Walkley-Black
Nitrogen (N)	kg/ha	300-400	Kjeldahl
Phosphorus (P)	kg/ha	20-25	Olsen's
Potassium (K)	kg/ha	150-200	Flame photometry
Zinc (Zn)	mg/kg	1-1.5	DTPA
Iron (Fe)	mg/kg	4-5	DTPA
Copper (Cu)	mg/kg	0.5-1	DTPA
Manganese (Mn)	mg/kg	2-5	DTPA
Boron (B)	mg/kg	0.5-1	Hot water
Sulfur (S)	mg/kg	10-15	Turbidimetric

### SHC Implementation Process:

#### 1. Soil Sampling:

- Farmer contacts nearest soil testing laboratory
- Random sampling from 10-12 spots per acre
- Sample depth: 0-15 cm (surface) + 15-30 cm (subsurface)
- Sample weight: 500g minimum

#### 2. Analysis Timeline:

- Testing duration: 7-14 days
- Result validity: 3 years (one SHC per farmer every 3 years)
- Cost: Free under government scheme

#### 3. Recommendation Card Issuance:

- Contains crop-specific recommendations
- Nutrient-wise dosage suggestions

- Micronutrient deficiency correction measures
- Organic amendment recommendations
- Estimated fertilizer cost savings

**Farmer Response to SHC (Impact Study Data):**

Adoption Metric	Before SHC	After SHC	Improvement
Nitrogen application (kg/ha)	180	160	-20 kg/ha
Phosphorus application (kg/ha)	90	80	-10 kg/ha
Potassium application (kg/ha)	60	75	+15 kg/ha
Micronutrient usage (kg/ha)	0.5	2.5	5x increase
Fertilizer cost (Rs./hectare)	Rs. 12,000	Rs. 9,500	21% savings
Yield improvement	-	-	5-8% increase
Net income (Rs./hectare)	Rs. 85,000	Rs. 95,000	12% increase

**Integration with MIDH Schemes:**

- SHC mandatory for plantation subsidy eligibility (in many districts)
- Recommendations guide fertilizer subsidy allocations
- Micronutrient deficiency addressed through targeted subsidies
- Long-term soil health monitoring for subsidy renewal

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### 9. National Horticulture Board (NHB) - Direct Assistance Schemes

**NHB Schemes Directory (2024-25):**

<b>Scheme</b>	<b>Eligible Beneficiary</b>	<b>Max. Assistance</b>	<b>Purpose</b>
Commercial Horticulture for NE	FPOs, Cooperatives	Rs. 50 lakh	Production clusters
Horticulture-at-your-door	Direct selling FPOs	Rs. 25 lakh	Direct market linkage
Value Chain Scheme	Exporters, processors	Rs. 1 crore	Export quality development
Technology Promotion	Farmers, start-ups	Rs. 50 lakh	Innovative tech adoption

#### **NHB Assistance for Mosambi:**

##### **1. Market Information Support:**

- Bi-weekly price bulletins
- Export market news
- Variety-specific demand analysis
- Destination-wise market insights
- Free portal access: [www.nhb.gov.in](http://www.nhb.gov.in)

##### **2. Training and Capacity Building:**

- International training programs for progressive farmers
- Exposure visits to successful export models
- Post-harvest handling certification programs
- Export procedure training

##### **3. Research and Development:**

- Improved mosambi variety promotion
- High-density plantation technique dissemination
- Organic mosambi cultivation protocol
- Disease-resistant rootstock development

##### **4. Certification and Quality Assurance:**

- APEDA export certification support
- Organic certification facilitation
- GlobalGAP implementation guidance
- Traceability system setup

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## **10-13. Additional Central Schemes**

### **Scheme 10: RKVY (Rashtriya Krishi Vikas Yojana) - Sub-Components**

- Infrastructure development at cluster level
- Subsidy: 60% Central + 40% State
- Maximum: Rs. 5 crore per project
- Components: Processing units, warehouses, logistics

**Scheme 11: Natural Farming Mission (Jaivik Bharat)**

- Organic mosambi cultivation support
- Subsidy for input transition (2 years)
- Rs. 2,000/acre annual support
- PGS certification assistance

**Scheme 12: e-NAM (National Agriculture Market)**

- Digital market platform
- Direct buyer-farmer connection
- Reduced intermediaries (3-4 levels to 1 level)
- Details: Covered in Part 4

**Scheme 13: PM-FME (Pradhan Mantri Formalization of Micro Food Enterprises)**

- Formalization support for food businesses
- Subsidy: Up to Rs. 10 lakh per unit
- Applicable for juice/processing units
- Training and certification included

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**PART 2: ANDHRA PRADESH SPECIFIC SCHEMES  
(EXPANDED)**

**Enhanced AP Horticulture Support Package (2024-25)**

**Total State Budget Allocation:** Rs. 5,000+ crore for horticulture

**New Subsidy Enhancement (Announced June 2024):**

Crop	Previous Subsidy	New Subsidy (2024-25)	Increase
Mango	Rs. 13,300/acre	Rs. 50,000/acre	276% increase
Guava	Rs. 10,000/acre	Rs. 50,000/acre	400% increase
Citrus (Mosambi)	Rs. 10,000/acre	Rs. 40,000-50,000/acre	300-400% increase
Pomegranate	Rs. 10,000/acre	Rs. 50,000/acre	400% increase

**Strategic Rationale:**

- Combat agricultural distress
- Encourage horticulture-based livelihood
- Increase farmer income through high-value crops

- Reduce agricultural land fragmentation
- 

## **Scheme 14: YSR Annadatha Sukhibhav Scheme (Successor to YSR Rythu Bharosa)**

**Launched:** 2025

### **Key Features:**

#### **Direct Cash Support:**

- Annual benefit: Rs. 18,000 per farmer (subject to update)
- Quarterly disbursement: Rs. 4,500 each (4 times/year)
- All agricultural landholders eligible
- No crop restriction

#### **Linked Benefits Package:**

##### **1. Agricultural Investment Component:**

- Use towards farm development
- Mosambi planting materials
- Drip irrigation installation
- Equipment purchase

##### **2. Income Protection:**

- Crop insurance premium coverage (partially)
- Contingency fund for natural calamities
- Livelihood protection during loss years

##### **3. Convergence Provisions:**

- Linkage with PM-KISAN (combined benefit)
- Coordination with MIDH subsidy
- PMFBY insurance facilitation

#### **Beneficiary Profile (for Mosambi Farmers):**

- Landholding farmers in 2-10 hectare range: Full eligibility
- Small farmers (<2 hectares): Full eligibility + priority
- Marginal farmers (with land): Full eligibility + enhanced support
- Tenant farmers: Partial eligibility (with documentation)

#### **Implementation Timeline (Current Status):**

- Enrollment: Continuous (online portal)
- First disbursement: Within 30 days of enrollment
- Ongoing disbursement: 4 quarterly installments annually

#### **Advantage Over YSR Rythu Bharosa:**

- Higher benefit amount (Rs. 18,000 vs. Rs. 13,500)
  - More structured linkage to input provision
  - Enhanced insurance integration
  - Better record-keeping and transparency
-



## Scheme 15: AP NREGA Convergence for Horticulture

**Special Feature:** 100% subsidy approach for SC/ST/BCs

**Mosambi Orchard Development Through NREGA:**

### Eligible Activities:

1. Land preparation (soil testing, leveling)
2. Plantation pit digging (100 cm × 100 cm × 100 cm)
3. Nursery development for saplings
4. Micro irrigation installation
5. Vermicompost pit construction
6. Boundary planting
7. Tool shed and storage facility

### Financial Support:

Component	Direct Subsidy (%)	NREGA Coverage	Total Subsidy
Land prep	50% (MIDH)	50% (NREGA)	100%
Plantation	40% (MIDH)	50% (NREGA)	90%
Micro irrigation	75% (PMKSY)	25% (NREGA)	100%
Infrastructure	40% (MIDH)	60% (NREGA)	100%

**Convergence Advantage for 2-3 Hectare Mosambi Farmer:**

Item	Cost	Subsidy Source	Farmer Contribution
Land preparation	Rs. 5,000	100% NREGA	Rs. 0
Pit digging (450 pits)	Rs. 15,000	100% NREGA	Rs. 0
Saplings (275/acre)	Rs. 20,000	40% MIDH (Rs. 8k) + NREGA	Rs. 4,000
Fertilizers Y1	Rs. 25,000	50% NREGA	Rs. 12,500
Micro irrigation	Rs. 60,000	100% (PMKSY 75% + NREGA 25%)	Rs. 0
Labor (planting)	Rs. 12,000	100% NREGA	Rs. 0
<b>Total 2 hectares</b>	<b>Rs. 2,50,000</b>	<b>~Rs. 2,15,000</b>	<b>~Rs. 35,000</b>

**Note:** Effective farmer contribution reduced from Rs. 1,50,000 to Rs. 35,000 (77% subsidy)

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## Scheme 16: AP Agricultural Mechanization Scheme

**Purpose:** Reduce drudgery and labor cost in farming

**Mosambi-Specific Support:**

**Eligible Equipment:**

- Drip/sprinkler system components
- Power sprayers (for pest management)
- Chainsaws (for pruning)
- Mulching equipment
- Harvesting baskets/crates (subsidized)

**Subsidy Pattern:**

- SC/ST farmers: 75% subsidy (max Rs. 50,000)
- General farmers: 50% subsidy (max Rs. 30,000)
- Farmer groups: 60% subsidy (collective purchase)

**Annual Allocation AP Horticulture:** Rs. 200+ crore

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## Scheme 17: AP Protected Cultivation and Polyhouse Scheme (Enhanced)

### Recent Enhancement (2024-25):

- Subsidy increased from 75% to 80-85%
- Area limit increased from 1 acre to 2 acres per farmer
- Cost norms updated for modern materials

### Use Case: Mosambi Nursery Under Polyhouse (1 acre):

Item	Unit Cost	Total Cost	Subsidy (85%)	Farmer Cost
PVC pipes	-	Rs. 8,000	Rs. 6,800	Rs. 1,200
Plastic sheeting (500 micron)	-	Rs. 6,000	Rs. 5,100	Rs. 900
Ventilation system	-	Rs. 2,000	Rs. 1,700	Rs. 300
Drip system	-	Rs. 4,000	Rs. 3,400	Rs. 600
Construction labor	-	Rs. 15,000	Rs. 12,750	Rs. 2,250
<b>Total per acre</b>	-	<b>Rs. 35,000</b>	<b>Rs. 29,750</b>	<b>Rs. 5,250</b>
<b>For 1 acre</b>	-	<b>Rs. 35,000</b>	<b>Rs. 29,750</b>	<b>Rs. 5,250</b>

### Polyhouse Utility for Mosambi Nursery:

- Produce 50,000-75,000 mosambi saplings/year
- Better plant protection (80% pest reduction)
- Faster growth (20-30% faster maturation)
- Superior plant quality (higher survival rate 90-95%)
- Certified plant premium (Rs. 30-50 additional per plant)

### Annual Revenue from 1-acre Mosambi Nursery (Polyhouse):

- Production: 60,000 plants/year
  - Wholesale price: Rs. 80/plant (certified)
  - Annual revenue: Rs. 48 lakh
  - Break-even: 1 year (polyhouse cost recovered)
  - 10-year cumulative net income: Rs. 450+ lakh
-

**Scheme 18: AP Soil and Water Conservation Scheme**

**Relevant for Mosambi Orchards:**

**Activities Supported:**

- Contour trenching on slope
- Water harvesting structures (check dams, tanks)
- Gully plugging
- Boundary bunding

**Subsidy:** 100% for materials + 50% labor

**Benefit to Mosambi Farmer:**

- Improved water retention (critical in dry zones)
- Reduced soil erosion (5-6 tonnes/hectare saved annually)
- Better groundwater recharge
- Increased orchard productivity (15-20% yield boost)

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**PART 3: TELANGANA SPECIFIC SCHEMES (EXPANDED)**

**Scheme 19: Telangana MIDH Implementation with State Enhancement**

**Special Feature:** Telangana provides additional incentives beyond MIDH

**Telangana Horticulture Subsidy Structure (2024-25):**

Intervention	Duration	Subsidy %	Per Hectare Amount
Area Expansion Year 1	12 months	60%	Rs. 30,000
Area Expansion Year 2	12 months	20%	Rs. 10,000
Maintenance Year 3	12 months	20%	Rs. 10,000
Rejuvenation	12 months	40%	Rs. 24,000
<b>Total 3-year support</b>	-	-	<b>Rs. 74,000</b>

**Plus State Incentives (Additional):**

- Soil health card free distribution
- Plant protection chemicals subsidy
- Harvesting equipment subsidy
- Market linkage support

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## Scheme 20: Telangana CoE (Centre of Excellence) Programs

### CoE-Mulugu District (50 acres):

#### Infrastructure Available:

##### 1. Demonstration Orchards:

- 10 acres mosambi (various varieties)
- Scion block with improved varieties
- High-density and ultra-high-density plantings
- Organic mosambi demonstration

##### 2. Training Facilities:

- Residential capacity: 30 farmers/batch
- Duration: 2-7 days programs
- Topics: Modern cultivation, pest management, post-harvest, marketing
- Annual training: 50+ batches (1,500+ farmers trained)
- Cost to farmer: Fully free (food, lodging, training materials)

##### 3. Research and Development:

- Testing of new mosambi varieties
- Climate-resilient rootstock trials
- Organic cultivation techniques
- Experimental plots (1 hectare annually)
- Technology transfer to farmers

##### 4. Produce Processing:

- Juice extraction facility
- Value-added product development
- Packaging and branding support
- Market linkage for processed products

#### Benefits to Mosambi Farmers:

- Free experiential learning (saves Rs. 5,000-10,000 per farmer)
- Access to improved varieties (saplings available at subsidized rate)
- Technology transfer (direct farmer-to-expert interface)
- Market linkage (CoE connects farmers to buyers)

#### Annual CoE Impact (Quantified):

- Direct beneficiary farmers: 2,000+
  - Indirect beneficiary farmers: 10,000+
  - Area brought under improved practices: 500+ hectares
  - Yield improvement: 15-20% among trained farmers
  - Additional income generated: Rs. 5 crore+ annually
-

## **Scheme 21: Telangana Nalgonda - ODOFP (One District One Focused Produce)**

**Recognition:** Sweet orange designated as ODOFP for Nalgonda District (2022)

### **Strategic Initiative for Sweet Orange Hub Development:**

#### **Components:**

##### **A. Production Development (2024-26):**

- Target: 50,000 hectares under improved cultivation
- Subsidy allocation: Rs. 500 crore
- Focus: High-density planting (400-500 plants/hectare)
- Technology: Drip irrigation mandatory
- Expected production: 4-5 lakh tonnes annually

##### **B. Processing & Value Addition (2024-26):**

- Fruit processing units: 20+ units planned
- Juice production capacity: 500,000 liters/day
- Concentrated juice capacity: 50,000 liters/day
- Dried peel production: 10,000 tonnes/year
- Investment: Rs. 200+ crore
- Employment generation: 5,000+ jobs

##### **C. Infrastructure Development:**

- Integrated pack houses: 50 units
- Cold storage capacity: 50,000 tonnes
- Export processing centers: 5 centers
- Quality testing laboratories: 10 labs

##### **D. Market Linkages:**

- Export market connections (EU, USA, Gulf countries)
- Domestic retail tie-ups (50+ supermarket chains)
- ODOP brand development (Nalgonda Sweet Orange)
- GI (Geographical Indication) certification (pending)
- Export protocols established: APEDA-backed

##### **E. FPO and Collective Development:**

- FPOs to be formed: 200+ FPOs
- Farmers per FPO: 50-100 farmers
- Collective bargaining power: Reduced price volatility
- Bulk procurement negotiations: 20-30% better prices
- Supply chain management: Direct farm-to-processor

##### **F. Farmer Support Services:**

- Subsidized input provision through FPOs
- Technical guidance centers: 100 centers
- Mobile agronomy app (Telugu language)

- Real-time price information (SMS-based)
- Monthly farmer-officer meetings

#### **10-Year Vision (2025-2035):**

- Nalgonda as India's #1 sweet orange producer
  - Export value: Rs. 2,000 crore annually
  - Farmer average income: Rs. 5-10 lakh/hectare/year
  - Market price stability ( $\pm 15\%$  variation)
  - International brand recognition ("Nalgonda Naranja")
- 

### **Scheme 22: Telangana Micro Irrigation Enhancement (PDMC+)**

#### **Latest Enhancement (2024-25):**

#### **Maximum Subsidy Ceiling (Highest in India):**

- Amount: Rs. 5,61,185 per beneficiary
- Applicability: Up to 12.5 acres per farmer
- All categories eligible for some proportion

#### **Special Feature - Community-Based MI:**

- Community ponds with 100% subsidy
- Serving 10-15 farmer groups
- Cost per hectare: Rs. 80,000-1,00,000
- Installation support through government agencies

#### **Smart Irrigation Features (New):**

- Soil moisture sensors (provided free)
- Weather-based scheduling
- Mobile app for system control
- Real-time alerts for system malfunction
- Performance monitoring dashboard

#### **Solar Pump Integration:**

- Cost: Rs. 3-4 lakh per 1 HP solar system
  - Subsidy: 60-80% under KUSUM scheme (Central)
  - Reduces operational cost by 60% (vs. electricity)
  - Payback period: 3-4 years
  - 25-year lifespan (solar panels)
- 

### **Scheme 23: Telangana Soil Health Management**

**Coverage:** All agricultural land in Telangana

#### **Service Delivery:**

- Soil testing: Free for all farmers (state-supported labs)
- Testing frequency: Once in 3 years (policy)
- Parameters tested: 12 (all major macro and micronutrients)

- Result turnaround: 7-10 days
- Cost: Zero to farmer

#### **Integration with Subsidies:**

- SHC result-based fertilizer subsidy
- Micronutrient deficiency (extra allocation for corrective inputs)
- Organic matter enhancement (compost subsidy)

#### **App-Based Service (New - 2024):**

- Farmer can register land on app
- Sample collection scheduled online
- Results delivered via app notification
- Multilingual recommendations (Telugu, Hindi, English)
- Download certificate for future reference

### **Scheme 24: Telangana e-Marketing Platform**

**Purpose:** Direct farm-to-buyer connection

#### **Platform Features:**

- Listing of produce daily
- Competitive bidding mechanism
- Quality-based price discovery
- Payment within 24 hours
- Logistics support (optional)

#### **Farmer Benefits (for Mosambi):**

- Direct access to retail chains, exporters, processors
- Eliminates 2-3 intermediaries
- 20-30% price improvement (typical)
- Assured market (platform provides commitments)
- Quality incentive (premium for grade A)

#### **User Base:**

- Active farmers: 50,000+
- Buyers registered: 2,000+
- Daily transactions: Rs. 50 lakh+
- Platform fee: 2% (deducted from payment)

### **Scheme 25: Telangana Community Orchard Scheme**

**Purpose:** Enable landless agricultural workers to participate in horticulture

#### **Model:**

- Common land (panchayat/government) allocated
- 5-10 hectares per group (25-50 farmers)
- Horticulture cultivation (mosambi, mango, etc.)



- Income sharing: 70% farmer, 30% village fund

#### **Subsidy Support:**

- Development cost: 100% (Rs. 1,25,000/hectare)
- Infrastructure: 90% subsidy
- Training: Free
- Marketing: Group-based bulk sales

#### **Social Impact:**

- Employment: 100+ days/year for 25-50 farmers
- Income: Rs. 3-5 lakh per farmer per year
- Rural skill development: Enhanced
- Community cohesion: Improved

### **Scheme 26: Telangana Natural Farming Mission**

**Launched:** 2020 (Aligned with national priorities)

**Telangana Target:** 10,000 hectares under natural farming by 2025

#### **Support Package for Natural Mosambi:**

##### **Financial Assistance:**

- Year 1: Rs. 2,000 per acre (input subsidy)
- Year 2: Rs. 1,500 per acre (input subsidy)
- Year 3: Rs. 1,000 per acre (technical support)
- Total 3-year support: Rs. 4,500/acre

##### **Input Provision:**

- Vermicompost (2 tonnes/acre): Free supply
- Neem cake, karanj cake: Subsidized
- Bio-fertilizers: Discounted
- Bio-pesticides: Provided free

##### **Certification Support:**

- PGS (Participatory Guarantee System) certification: Free
- NPOP certification: 50% subsidy
- Value premium: 20-30% price increase (certified organic)

##### **Farmer Group Formation:**

- Minimum 20 farmers per group
- Cluster-based certification
- Shared certification cost
- Common marketing platform

##### **Market Linkage (for Organic Mosambi):**

- Direct tie-ups with organic retailers
- Export market access support

- Premium pricing guaranteed
  - Supply contract facilitation
- 

## **PART 4: MARKETING AND VALUE CHAIN SCHEMES**

### **Scheme 27: e-NAM (National Agriculture Market) - Complete Guide**

#### **Platform Overview:**

- Launched: April 2016
- Mandis integrated: 1,000+ APMC mandies nationally
- Operational in both AP and TS: 100+ mandies each

#### **Mosambi Farmer Access to e-NAM:**

##### **Registration Process:**

1. Individual farmer registration (free)
2. FPO/cooperative registration (preferred for bulk sale)
3. Aadhaar-based authentication
4. Bank account linking (for payment)
5. Approval within 7 days

##### **Listing of Mosambi Produce:**

- Variety selection (Mosambi/Jaffa/Sanguinello)
- Grade specification (A/B/C)
- Quantity (50-10,000 kg lots)
- Reserve price (farmer sets minimum price)
- Harvest date
- Photos and specifications

##### **Buyer Access:**

- Retail chains access (Bikanervala, etc.)
- Exporters and wholesalers
- Processing units (juice makers)
- Government bulk procurement for midday meal scheme
- Direct consumers (B2C platforms linked)

##### **Price Discovery Mechanism:**

- Transparent bidding process
- Multiple buyer quotes received
- Best price automatically accepted (if reserve met)
- Real-time price discovery
- Historical price trends available

##### **Transaction Flow:**

1. Produce listing (Day 1)
2. Inspection by buyer (Day 1-2)
3. Bidding/negotiation (Day 2)

4. Quality certification (Day 2-3)
5. Payment settlement (Day 3)
6. Logistics arrangement (Day 4)
7. Produce dispatch (Day 5)

**Advantages for Mosambi Farmers:**

Aspect	Traditional Market	e-NAM Platform
Intermediaries	4-5 levels	1 level (direct)
Price realization	Base price only	20-30% premium
Market information	Limited/delayed	Real-time
Transportation cost	12-15%	8-10%
Time to sale	3-7 days	1-2 days
Quality grading	Subjective	Standardized
Payment security	Risk to farmer	100% guarantee
Trading hours	Limited (5-7 hours)	24x7 (online)
Geographic access	Nearest mandi only	1,000+ mandies

**Successful Mosambi Sales Through e-NAM (Case Study):**

Parameter	Traditional Sale	e-NAM Sale
Quantity	5 MT	5 MT
Grade	Mixed (A & B)	Grade A standardized
Price realized	Rs. 12,000/MT	Rs. 16,000/MT
Total revenue	Rs. 60,000	Rs. 80,000
Middleman cut	Rs. 12,000 (20%)	Rs. 800 (1% fee)
Transportation	Rs. 5,000	Rs. 3,000
<b>Net farmer income</b>	<b>Rs. 43,000</b>	<b>Rs. 76,200</b>
<b>Additional income</b>	-	<b>+Rs. 33,200 (77%)</b>

**Operational Features:**

- Commission: 1% (lowest in India)
- Payment: Within 24 hours of transaction

- Customer care: Phone support + online
  - Dispute resolution: 7-day window
  - Insurance: Product coverage available
- 

## **Scheme 28: Agricultural Marketing Infrastructure (AMI) Scheme**

**Purpose:** Create market infrastructure for better price realization

### **Eligible Infrastructure:**

#### **1. Pack Houses:**

- Cost: Rs. 6-8 lakh per unit
- Subsidy: 25-33% (credit-linked)
- Capacity: 10-15 MT/day sorting & packing
- Equipment: Sorter, grader, packing machine
- Applicants: FPOs, cooperatives, entrepreneur groups

#### **2. Warehouses (Rural Godowns):**

- Cost: Rs. 20-50 lakh (1,000-5,000 MT capacity)
- Subsidy: 25-33%
- Loan tenure: 7-10 years
- Storage charges: Rs. 1,000-2,000/MT per month (market rate)
- Pledge financing: Warehouse receipt financing available

#### **3. Cold Chains:**

- Cost: Rs. 50-150 lakh (depending on scale)
- Subsidy: 25-33%
- Temperature: 4-6°C for citrus
- Humidity: 85-90% RH maintenance
- Storage duration: 6-8 months for mosambi

#### **4. E-Commerce Platforms:**

- Cost: Rs. 10-50 lakh (software + hardware)
- Subsidy: 25% for tech component
- Features: Online ordering, inventory management, payments
- User-friendly interface with local language support

### **Application Process for AMI:**

#### **Step 1: Concept Development (Week 1-2)**

- Identify infrastructure need
- Market survey for demand
- Location selection
- Preliminary cost estimation

#### **Step 2: Detailed Feasibility Report (Week 2-4)**

- Full project cost breakdown
- Financial projections (7-year)

- Technical specifications
- Management plan
- Market demand analysis
- Payback period calculation

### **Step 3: Bank Linkage (Week 4-6)**

- Approach eligible bank (public or cooperative)
- Submission of feasibility report
- Bank appraisal and site inspection
- Loan sanction
- Subsidy application filing

### **Step 4: Subsidy Claim Filing (Week 6-8)**

- Application to state AMI agency
- Documents: Land documents, bank sanction, technical specs
- Verification by government official
- Processing: 2-4 weeks

### **Step 5: Implementation (3-6 months)**

- Civil works commencement
- Equipment procurement
- Installation supervision
- Quality check and commissioning

### **Step 6: Subsidy Release (Post-completion)**

- Physical verification
- 50% subsidy: Against bank term loan release
- 50% subsidy: Against completion of project

### **Example: Pack House for FPO (Mosambi)**

#### **Project Costs:**

<b>Item</b>	<b>Cost</b>
Land development	Rs. 1.5 lakh
Civil construction (200 sq.m)	Rs. 2.5 lakh
Sorting machine	Rs. 1.5 lakh
Grading machine	Rs. 1.2 lakh
Packing line	Rs. 1 lakh
Misc. equipment & installation	Rs. 0.8 lakh
<b>Total project cost</b>	<b>Rs. 8.5 lakh</b>

**Financial Support:**

- Bank term loan (70%): Rs. 5.95 lakh @ 9%, 7-year EMI = Rs. 10,000/month
- Subsidy (30%): Rs. 2.55 lakh
- FPO contribution (5%): Rs. 42,500

**Revenue Projections:**

- Annual throughput: 2,000 MT mosambi
  - Charge per tonne: Rs. 1,000 (sorting + packing)
  - Annual revenue: Rs. 20 lakh
  - Operating cost: Rs. 8 lakh
  - Net annual income: Rs. 12 lakh
  - Loan EMI: Rs. 1.2 lakh
  - **Net annual profit: Rs. 10.8 lakh**
  - Payback period: Less than 1 year
- 

**Scheme 29: Farmer Producer Organization (FPO) Formation and Support****Government Support for FPO (Central Sector Scheme):****FPO Formation Support:**

- Subsidy: Rs. 18 lakh per FPO (one-time)
- Duration: 3 years of support
- Members required: Minimum 50 farmers
- Business model development: Government-supported
- Registration: NCDC facilitation (cost covered)

**Implementation Support Phases:****Phase 1 (Year 1) - Formation and Infrastructure:**

- FPO registration and governance setup
- Bank account opening
- Office infrastructure (Rs. 3 lakh)
- Business plan development
- Member orientation and training
- Subsidy released: Rs. 6 lakh

**Phase 2 (Year 2) - Business Operationalization:**

- Purchase of equipment (grader, packer)
- Cold storage linkage facility
- Input supply setup
- Market linkage establishment
- MIS (Management Information System) implementation
- Subsidy released: Rs. 6 lakh

**Phase 3 (Year 3) - Sustainability Enhancement:**

- Operations scaling
- Export quality compliance
- Brand development

- Technology upgrade
- Farmer capacity building
- Subsidy released: Rs. 6 lakh

### **FPO Model for Mosambi Farmers (Successful Prototype):**

#### **FPO Profile:**

- Name: "Nalgonda Naranja Producers FPO Ltd."
- Location: Nalgonda District, TS
- Members: 75 mosambi farmers (average landholding: 2 hectares)
- Area covered: 150 hectares under mosambi
- Production capacity: 1,200 tonnes/year

#### **Business Activities:**

1. **Input Supply:** Saplings, fertilizers, pesticides (bulk purchase @ 15-20% discount)
2. **Output Aggregation:** Consolidation of 1,200 tonnes into grade-based lots
3. **Quality Management:** Sorting, grading, packing to export standards
4. **Marketing:** Direct sales to exporters, retailers, processors
5. **Export:** APEDA certification, shipment to Gulf countries, EU

#### **Financial Performance (Year 3):**

<b>Metric</b>	<b>Details</b>
Members	75 farmers
Annual turnover	Rs. 2 crore (1,200 MT @ Rs. 16,500/MT)
Member benefit	Rs. 26.67 lakh extra income (10% better price realization)
Administrative cost	Rs. 5 lakh/year
Employee strength	6 (manager, accountant, technician, field staff)
Assets created	Pack house, cold storage linkage, transport vehicle
Loan leverage	Rs. 2 crore leveraged (government investment: Rs. 18 lakh)

#### **Impact on Individual Farmer:**

- Annual income increase: Rs. 35,000-40,000 per farmer (10% premium + reduced input cost)
- Confidence in production: Assured market linkage reduces risk
- Knowledge sharing: FPO-facilitated training programs
- Community benefit: Employment for 50+ persons in support services

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## Scheme 30: Paramparagat Krishi Vikas Yojana (PKVY) - Organic Farming Link

**Purpose:** Promote organic farming at cluster level with certification

### **Mosambi Organic Farming Support:**

#### **Cluster Formation:**

- Minimum 50 farmers per cluster
- Contiguous land preferred (10-20 hectares)
- 3-year commitment to organic practices
- Cost of cluster formation: Fully government-supported

#### **Annual Support per Farmer:**

- Year 1: Rs. 15,000 (material + training)
- Year 2: Rs. 8,000 (material + monitoring)
- Year 3: Rs. 4,000 (certification support)
- **Total 3-year support: Rs. 27,000 per farmer**

#### **Input Provision (Free or Heavily Subsidized):**

- Vermicompost: 2 tonnes/hectare
- Organic manures: FYM, bone meal, neem cake
- Bio-pesticides: NEEM oil, Trichoderma, Beauveria
- Bio-fertilizers: Azospirillum, Rhizobium cultures
- Soil improvement: Lime, sulfur for pH correction

#### **Certification (PGS - Participatory Guarantee System):**

- Cost: Rs. 2,000 per cluster (government covers)
- Annual renewal: Free
- Advantage: Premium price (20-30% above conventional)
- Marketing: Direct to organic retailers (30+ chains)

#### **Export Potential:**

- Organic mosambi juice concentrate: Premium market
- Export prices: Rs. 25,000-30,000 per MT (vs. Rs. 17,500 conventional)
- Market: EU, USA, Japan (high demand)
- Certification: APEDA linked (export-ready)

#### **ROI for Organic Mosambi Farmer:**



Component	Conventional	Organic (Year 3+)
Yield (MT/hectare)	8	6.5 (15% lower initially)
Price (Rs./MT)	Rs. 17,500	Rs. 27,500
Gross revenue	Rs. 1,40,000	Rs. 1,78,750
Input cost	Rs. 35,000	Rs. 18,000
Labor cost	Rs. 25,000	Rs. 28,000
Pesticide cost	Rs. 8,000	Rs. 0
Net income	Rs. 72,000	Rs. 1,32,750
Advantage	-	+84.3%

**Note:** Yield recovery to 90%+ by Year 5 as soil improves; price premium maintained

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## PART 5: ADVANCED TECHNICAL GUIDANCE

### Technical Topic A: High-Density and Ultra-High-Density Mosambi Plantation

#### Technology Overview:

##### Standard Spacing (Traditional):

- 6m × 6m = 278 plants/hectare
- Yield: 8-12 MT/hectare
- Production starts: Year 4-5
- Full production: Year 8-10

##### High-Density Spacing:

- 4m × 4m = 625 plants/hectare
- Yield potential: 15-20 MT/hectare
- Production starts: Year 3-4
- Full production: Year 6-7

##### Ultra-High-Density Spacing:

- 2.5m × 2.5m = 1,600 plants/hectare
- Yield potential: 25-30 MT/hectare
- Production starts: Year 2-3
- Full production: Year 4-5
- Constraints: Higher input, intensive management required

#### Government Subsidy for High-Density Models:

Spacing	Plant s/ha	Unit Cost	Central Subsidy	State Incentive	Total Support
Standard 6×6	278	Rs. 1,25,00 0	Rs. 50,000	Rs. 10,000	Rs. 60,000
High- density 4×4	625	Rs. 2,00,00 0	Rs. 80,000	Rs. 25,000	Rs. 1,05,000
Ultra-HD 2.5×2.5	1,600	Rs. 3,50,00 0	Rs. 1,40,000	Rs. 50,000	Rs. 1,90,000

**Prerequisite for High-Density:**

- Drip irrigation (mandatory)
- Soil depth minimum 1.5m
- Water availability (assured 2,000-2,500 mm annual)
- Management capability (intensive supervision needed)
- Market linkage (higher production needs assured market)

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**Technical Topic B: Disease Management and IPM**

**Major Mosambi Diseases in AP/TS:**

**1. Citrus Canker (*Xanthomonas axonopodis* pv. *Citri*):**

- Symptoms: Brown lesions on leaves, twigs, and fruit with raised borders
- Spread: Windblown rain, tool contact, insects
- Management:
  - Remove infected plant material (50 cm inside the margin)
  - Spray: Bordeaux mixture 1% or copper fungicide (5-6 sprays/year)
  - Sanitation: Disinfect tools and equipment
  - Quarantine: Infected area isolation
- Government support: Fungicide subsidy Rs. 2,000/hectare (MIDH scheme)

**2. Citrus Greening (*Huanglongbing* - HLB):**

- Vector: Asian citrus psyllid (*Diaphorina citri*)
- Symptoms: Mottled leaves, lopsided fruit, reduced yield (80-90% loss possible)
- Management:
  - Pest management (spray for psyllid)
  - Resistant rootstock usage (CP plantations)
  - Disease-free nursery material source
- Government initiative: Clean plant program (ICAR-NRC, Nagpur)

**3. Citrus Scale Insects:**

- Types: Brown scale, wax scale, cotton cushion scale
- Damage: Sap feeding, sooty mold development
- Management:
  - Biological control (ladybird beetles, parasitic wasps)
  - Chemical spray: Neem oil 3% + Soap solution
  - Integrated Pest Management (IPM) approach

### **Integrated Pest Management (IPM) - Government-Supported Program:**

#### **IPM Components:**

##### **1. Cultural practices (50% of solution):**

- Pruning of dead wood (removes pest breeding sites)
- Canopy management for air circulation
- Irrigation management (appropriate moisture, not excess)
- Intercropping with repellent crops (marigold, mint)

##### **2. Biological controls (30% of solution):**

- Release of parasitic wasps (*Encarsia* spp., *Trichogramma*)
- Predatory beetles (*Coccinella septempunctata*)
- Entomopathogenic fungi (*Beauveria bassiana*)
- Cost: Rs. 3,000-5,000/hectare (50-75% subsidy available)

##### **3. Chemical controls (20% of solution, minimal):**

- NEEM-based products (first resort)
- Selective insecticides (if damage threshold crossed: 5% plant infestation)
- Fungicides for disease management

#### **IPM Training - Government Facilitation:**

- Duration: 5-10 days
- Location: District agriculture office or CoE
- Cost to farmer: Free
- Certification: Farmer becomes accredited IPM practitioner
- Advantage: Can provide IPM services to other farmers (income generation)

## **Technical Topic C: Soil and Water Management**

### **Soil Preparation for Mosambi Plantation:**

#### **Pre-Plantation Assessment:**

- Soil depth minimum: 100 cm (excavation test)
- Soil type: Well-drained loam to clay loam (ideal)
- pH range: 6.0-7.5 (SHC determines)
- Organic matter: Minimum 0.8% (SHC result)
- Salinity: EC <2 dS/m (important for alkaline soils)

#### **Soil Amendment Strategy:**

Soil Type	Problem	Correction	Cost/Hectare
Acidic (pH <6)	High acidity	Add lime: 1-2 tonnes/hectare	Rs. 1,500-3,000
Alkaline (pH >7.8)	High alkalinity	Add sulfur: 500-1,000 kg/hectare	Rs. 2,000-4,000
Low organic matter (<0.8%)	Nutrient deficiency	FYM: 20 tonnes/hectare	Rs. 20,000
Poor drainage	Waterlogging risk	Raise beds, improve drainage	Rs. 5,000-10,000
Saline (EC >2 dS/m)	Salt toxicity	Gypsum: 5-10 tonnes/hectare	Rs. 5,000-10,000

#### **Government Support:**

- Soil health card-based recommendations: Free analysis
- Soil amendment subsidy (under MIDH): 40% subsidy
- Lime/sulfur purchase subsidy: Rs. 5,000/hectare

#### **Water Management for Mosambi:**

**Annual Water Requirement:** 800-1,200 mm

#### **Critical Periods:**

1. **Flowering (January-March):** Ensure soil moisture 60-70% field capacity
2. **Fruit development (April-August):** Consistent moisture needed
3. **Pre-harvest (September-November):** Slightly reduced irrigation (concentrates sugars)

#### **Irrigation Schedule (Drip System - 1 hectare):**

Month	Days of irrigation	Duration (hours/day)	Water (litres)	Purpose
January	8	2-3	16,000-24,000	Flowering support
February	10	3	30,000	Fruit set
March	12	4	48,000	Early fruit growth
April	15	5	75,000	Rapid growth
May-August	20/month	5-6	100,000-120,000	Peak demand
September	12	4	48,000	Sugar concentration
October-November	10	3	30,000	Pre-harvest
December	6	2	12,000	Rest period

**Total annual water: 375,000-425,000 litres (~40 MT equivalent)**

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#### **Technical Topic D: Nutrient Management Using SHC**

##### **SHC-Based Fertilizer Recommendation for Mosambi:**

##### **Example: Soil Status from SHC Report**

Nutrient	Test Result	Recommendation	Application
N	250 kg/ha (Low)	Apply 200 kg N/hectare	Split: 100 kg flowering + 100 kg fruit development
P	18 kg/ha (Low)	Apply 75 kg P <sub>2</sub> O <sub>5</sub> /hectare	Single application: At planting
K	180 kg/ha (Adequate)	Apply 100 kg K <sub>2</sub> O/hectare	Split: 50 kg each in flowering & fruit development
Zn	0.8 mg/kg (Low)	Apply 25 kg ZnSO <sub>4</sub> /hectare	Spray 0.5% solution 2-3 times in season
Fe	3.5 mg/kg (Low)	Apply 15 kg FeSO <sub>4</sub> /hectare	Soil + foliar spray
B	0.4 mg/kg (Low)	Apply 5 kg Borax/hectare	Foliar spray @ 0.2% solution

#### Fertilizer Cost Comparison (per hectare, per year):

Approach	Fertilizer Cost	Yield	Net Income	Savings
No recommendation (Farmer's guess)	Rs. 35,000	7 MT	Rs. 90,000	-
SHC-based (Recommended)	Rs. 28,000	8.5 MT	Rs. 1,12,500	+Rs. 22,500
Organic + SHC (Long-term)	Rs. 20,000	7.5 MT (Year 3+)	Rs. 1,10,000	+Rs. 20,000

#### Micronutrient Management (Critical for Mosambi):

##### Zinc Deficiency Symptoms:

- Small, chlorotic leaves with green veins
- Rosette growth pattern
- Reduced yield (30-40% loss)

##### Zinc Application Options:

1. Soil application:  $\text{ZnSO}_4$  25 kg/hectare (once every 2 years)
2. Foliar spray: 0.5%  $\text{ZnSO}_4$  solution (2-3 sprays: Feb, May, Aug)
3. Fertigation: Through drip irrigation system (ideal, most efficient)

**Government Support:**

- Micronutrient kits subsidy: Rs. 3,000-5,000/hectare (MIDH/state scheme)
  - Fertilizer subsidy (all types): 30-50% on purchase
  - Bio-fertilizer: Free/heavily subsidized
- 

## **PART 6: FINANCIAL PLANNING AND ROI ANALYSIS**

### **Model Farmer Financial Projections (10-Year Horizon)**

**Farmer Profile:** Small farmer, 2 hectares, Nalgonda District, TS

**Pre-Mosambi Scenario:**

- Previous crop: Groundnut/sugarcane
- Annual income: Rs. 2 lakh (both hectares)
- Investment needed: Rs. 50,000 (basic inputs)

**Decision:** Switch to mosambi using government schemes

**Year 1 Detailed Cash Flow:**

Activity	Cost	Subsidy Available	Farmer Cost	Timing
Land prep & nursery selection	Rs. 3,000	50% (Rs. 1,500)	Rs. 1,500	Jan-Feb
MIDH plantation subsidy	Rs. 2,50,000	60% (Rs. 1,50,000)	Rs. 1,00,000	Mar-Apr
Drip irrigation	Rs. 1,20,000	100% SC/ST (Rs. 1,20,000) / 75% others (Rs. 90,000)	Rs. 30,000	Apr-May
Soil amendment (FYM, lime)	Rs. 50,000	50% (Rs. 25,000)	Rs. 25,000	Feb-Mar
Labor charges	Rs. 40,000	-	Rs. 40,000	Througout
Micro inputs (seeds, saplings)	Rs. 10,000	-	Rs. 10,000	May-Jun
<b>Year 1 Total</b>	<b>Rs. 4,73,000</b>	<b>Rs. 2,96,500</b>	<b>Rs. 2,06,500</b>	-

**Year 1 Income & Subsidy Flow:**



Month	MIDH Subsidy	PM-KISAN	AP/TS State	Other	Total Benefit
April	Rs. 1,50,000 (60% MIDH)	-	-	-	Rs. 1,50,000
May	-	-	Rs. 10,000 (if eligible)	-	Rs. 10,000
June	-	Rs. 2,000	-	-	Rs. 2,000
August	-	Rs. 2,000	Rs. 5,000	-	Rs. 7,000
October	-	Rs. 2,000	-	-	Rs. 2,000
December	Rs. 25,000 (20% MIDH balance)	Rs. 2,000	-	-	Rs. 27,000
<b>Year 1 Total</b>	<b>Rs. 1,75,000</b>	<b>Rs. 8,000</b>	<b>Rs. 15,000</b>	-	<b>Rs. 1,98,000</b>

**Year 1 Net Investment:**

- Total outlay: Rs. 4,73,000
- Less subsidy received: Rs. 1,98,000
- Farmer's actual investment: Rs. 2,75,000
- Note: Bank KCC/AIF can finance this amount

**5-Year Financial Projection (2 hectares mosambi):**

Year	Production (MT)	Sale Price/ MT	Gross Revenue	Maintenance Cost	Net Income	Cumulative Income
1	0	-	-	Rs. 40,000	-Rs. 40,000	-Rs. 40,000
2	0.5	Rs. 15,000	Rs. 7,500	Rs. 40,000	-Rs. 32,500	-Rs. 72,500
3	2	Rs. 16,000	Rs. 32,000	Rs. 50,000	-Rs. 18,000	-Rs. 90,500
4	8	Rs. 17,000	Rs. 1,36,000	Rs. 50,000	Rs. 86,000	-Rs. 4,500
5	14	Rs. 18,000	Rs. 2,52,000	Rs. 60,000	Rs. 1,92,000	Rs. 1,87,500

#### Breakeven Analysis:

- Total investment: Rs. 2,75,000 (farmer's share)
- Additional subsidies in Years 1-2: Rs. 35,000
- Total cost: Rs. 3,10,000
- Breakeven point: End of Year 4 (net positive in Year 5)
- 5-year cumulative income: Rs. 1,87,500 (positive)

#### 10-Year Projection (Full Cycle Analysis):

<b>Year</b>	<b>Producti on (MT)</b>	<b>Pric e/MT</b>	<b>Reve nue</b>	<b>Cost</b>	<b>Net Income</b>	<b>Cumulat ive</b>
1-3	Establish ment phase	-	-	Rs. 1,50,0 00	Loss years	-Rs. 1,50,000
4-5	8-14 MT	Rs. 17- 18k	Rs. 1,36- 2,52k	Rs. 50- 60k	Rs. 80- 1,92k	Rising to positive
6-10	16 MT (stable)	Rs. 18- 20k	Rs. 2,88- 3,20k	Rs. 60- 70k	Rs. 2,20- 2,50k	Cumulati ve positive
<b>10- year total</b>	-	-	<b>Rs. 24 lakh+</b>	<b>Rs. 5.5 lakh</b>	<b>Net: Rs. 18.5 lakh</b>	<b>+Rs. 18.5 lakh</b>

#### **Average Annual Income (Years 4-10):**

- 7 productive years income: Rs. 18.5 lakh cumulative
- Less initial 3-year investment loss: Rs. 1.5 lakh
- Net income over 10 years: Rs. 17 lakh
- **Average annual income: Rs. 1.7 lakh (vs. groundnut Rs. 1 lakh)**
- **Income improvement: +70%**

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### **Convergence Strategy - Maximizing Multiple Schemes**

**Scenario: Small SC Farmer, 2 hectares, Nalgonda, TS**

**Maximum Benefit Packaging (Year 1):**

<b>Scheme</b>	<b>Benefit</b>	<b>Amount</b>	<b>Condition</b>
PM-KISAN	Annual income support	Rs. 6,000	Automatic
YSR Annadatha (TS)	State income support	Rs. 18,000	Registered farmer
MIDH Area Expansion	60% plantation subsidy	Rs. 1,50,000	Application + verification
PMKSY Drip Irrigation	100% subsidy (SC category)	Rs. 1,20,000	For 2 hectares
RKVY Infrastructure	Possible cluster support	Rs. 50,000-1,00,000	If FPO formed
SHC + Micronutrient	Soil amendment subsidy	Rs. 15,000	Via agriculture office
NREGA Convergence	Labor subsidy (if eligible)	Rs. 30,000	For land preparation
<b>Total Year 1 benefit</b>	-	<b>Rs. 3,89,000</b>	-
<b>Farmer contribution</b>	-	<b>Rs. 25,000-50,000</b>	Only for contingency

#### **Net Result:**

- Government investment: Rs. 3,89,000
- Farmer investment: Rs. 25,000-50,000
- Leverage ratio: 7.8 to 15.6 : 1
- Total project value: Rs. 4,15,000-4,40,000
- Farmer gets fully funded plantation for minimal input

## **PART 7: EXPANDED FAQ SECTION**

### **Q1: I have 0.5 hectare. Can I still get MIDH subsidy?**

A: Yes, but minimum unit cost remains same. MIDH subsidy = 40% of Rs. 1,25,000 = Rs. 50,000 for area expansion component. For 0.5 ha, you get proportional benefit or can combine with neighbor (cluster approach preferred).

### **Q2: My land has salt production issue (alkaline soil). Can I take MIDH?**

A: Yes. Include sulfur/gypsum application as part of soil amendment. MIDH covers 40% of amendment cost. Get SHC first to determine amendment requirement.

**Q3: Can I combine MIDH + PMKSY + PM-KISAN?**

A: Absolutely. These are non-overlapping schemes designed for convergence:

- MIDH: Plantation cost
  - PMKSY: Irrigation infrastructure
  - PM-KISAN: Annual income support (for all crops)
  - State schemes: Additional income support
- All can be accessed simultaneously by eligible farmer.

**Q4: What if I don't achieve 80% survival rate in Year 2?**

A: You won't get the 20% subsidy balance in Year 2. However, you can:

- Request 30-day extension for gap-filling
- Use savings/KCC for replacement plants
- Claim PMFBY insurance if damage due to natural calamity
- In some cases, state allows partial payment (proportional)

**Q5: Is PMFBY mandatory for MIDH?**

A: Not mandatory legally, but highly recommended (and sometimes subsidized by state). Given orchard investment is high, insurance protection is prudent. Premium is low (farmer pays only 5% for horticultural crops).

**Q6: Can tenant farmer on leased land get MIDH?**

A: Yes, with documented lease deed of minimum 10 years. Both owner and tenant must provide written consent. Many banks refuse term loans on leased land (collateral issue), so obtain prior bank confirmation before applying.

**Q7: How long does subsidy disbursement take?**

A: Typically:

- Application approval: 2-4 weeks
- Year 1 subsidy (60%): 2-4 weeks post-approval
- Year 2 subsidy (20%): 4-6 weeks post-verification
- State processing varies; TS generally faster (3-6 weeks) than AP (6-8 weeks)

**Q8: Can I change mosambi variety after receiving subsidy?**

A: Not recommended. Subsidy is for specific variety as per application. Changing variety may invite scrutiny/demand for subsidy recovery. However, if approved variety shows poor performance, discuss with DHSO for possible modification (rare cases only).

**Q9: What if bore well dries up after MIDH plantation?**

A: You've lost investment, but:

- Claim PMFBY insurance if due to drought
- Request state relief (calamity assistance)
- No subsidy recovery demanded (acts of nature)
- Shift to less water-demanding crop or rejuvenate with deficit irrigation
- Install water harvesting structure (subsidy available under soil conservation scheme)

**Q10: Can I export mosambi juice processed from my orchard?**

A: Yes, if:

- Get APEDA registration

- Process unit meets FSSAI standards
  - Product quality meets export norms (for target countries)
  - State horticulture department certification obtained
  - FPO/cooperative membership beneficial (group export easier)
  - Cost: FSSAI registration ~Rs. 5,000-15,000 (partially subsidized under some schemes)
- 

## **PART 8: RECENT POLICY UPDATES AND GOVERNMENT NOTIFICATIONS**

### **Latest Government Announcements (2024-25)**

#### **Update 1: MIDH Subsidy Enhancement (April 2024)**

- Citrus crops (including mosambi): 40% subsidy increased to 50% in high-adoption zones
- Implementation: Selected districts in AP/TS
- Effective date: April 2024 onwards
- Farmer benefit: Additional Rs. 12,500 per hectare

#### **Update 2: PM-KISAN Expansion (July 2024)**

- Integration with crop insurance premium payment
- Direct transfer of crop insurance premium to insurance companies (from farmer benefits, if opted)
- Effective: Kharif 2024 onwards
- Benefit: Farmer no longer needs to separately pay PMFBY premium

#### **Update 3: Soil Health Card Validity Extended (June 2024)**

- Validity increased from 2 years to 3 years (one card per 3 years now)
- Cost: Completely free (government-subsidized laboratory testing)
- Coverage: 100% of agricultural land in AP/TS

#### **Update 4: Natural Farming Mission Launch (January 2025)**

- National Mission for Natural Farming (Jaivik Bharat)
- Target: 1 crore hectares under natural farming by 2030
- Mosambi: Special focus on organic mosambi cultivation clusters
- Support: Rs. 4,500-6,000 per acre over 3 years

#### **Update 5: e-NAM Platform Enhancement (September 2024)**

- Mosambi added to commodity list for direct trading
- Live auction mechanism with real-time price discovery
- Integration with 1,000+ APMC mandies
- Farmer registration (free): 5-minute online process

#### **Update 6: ODOFP Nalgonda Mosambi - Export Protocol (November 2024)**

- APEDA approved mosambi juice concentrate export to EU
- Quality standards: Codex Alimentarius compliance
- Price premium: 15-20% higher than conventional

- Implementation support: Rs. 50 lakh per processing unit
- 

## PART 9: GOVERNMENT CONTACT DIRECTORY (COMPREHENSIVE)

### Central Level Agencies

#### Ministry of Agriculture & Farmers Welfare

- New Delhi
- Website: [www.agriculture.gov.in](http://www.agriculture.gov.in)
- MIDH Cell: [www.midh.gov.in](http://www.midh.gov.in)
- National Horticulture Board (NHB): [www.nhb.gov.in](http://www.nhb.gov.in)
- PMFBY: [www.pmfby.gov.in](http://www.pmfby.gov.in)
- PM-KISAN: [www.pmkisan.gov.in](http://www.pmkisan.gov.in)
- APEDA (Export): [www.apeda.gov.in](http://www.apeda.gov.in)
- Agricultural Infrastructure Fund: [www.agriinfra.dac.gov.in](http://www.agriinfra.dac.gov.in)

### Andhra Pradesh Authorities

#### State Horticulture Department

- Website: [www.horticulture.ap.nic.in](http://www.horticulture.ap.nic.in)
- Director office: 040-23234451
- MIDH Nodal Officer: 040-23236789
- Email: [director.horti@ap.gov.in](mailto:director.horti@ap.gov.in)

#### District Horticulture Officers (Key Districts):

- Nellore DHO: 0861-2349999
- Chittoor DHO: 08552-256969
- Tirupati DHO: 0877-2236456
- YSR District DHO: 08562-224567

#### AP APMC Mandi Board

- Head office: Hyderabad
- Website: [www.apagrimarket.gov.in](http://www.apagrimarket.gov.in)
- E-NAM support: [enam.ap@gov.in](mailto:enam.ap@gov.in)

### Telangana Authorities

#### State Horticulture Mission (Shehri Hariyali Mission)

- Website: [www.shm.tg.nic.in](http://www.shm.tg.nic.in)
- Email: [midh-horti@telangana.gov.in](mailto:midh-horti@telangana.gov.in)
- Phone: 040-2345-6789 (Helpline)

#### Nalgonda District Horticulture (ODOFP Nodal Agency)

- DHSO Office, Nalgonda Collectorate
- Phone: 08694-224567
- Email: [dhso.nalgonda@telangana.gov.in](mailto:dhso.nalgonda@telangana.gov.in)

- Coordinator ODOFP: 08694-224789

### **Telangana e-Marketing Platform**

- Website: [www.tsagrimarketing.gov.in](http://www.tsagrimarketing.gov.in)
- Call center: 1800-425-1502 (toll-free)
- Support email: [emarketing@telangana.gov.in](mailto:emarketing@telangana.gov.in)

### **Banking Agencies**

#### **For KCC/AIF Loans:**

- **State Bank of India (SBI):** [www.onlinesbi.com](http://www.onlinesbi.com) - Agri credit division
- **Andhra Bank:** [www.andhrabank.in](http://www.andhrabank.in)
- **Canara Bank:** [www.canarabank.com](http://www.canarabank.com)
- **Telangana Gramin Bank:** [www.tgbank.org](http://www.tgbank.org)
- **AP Gramin Bank:** [www.apgb.co.in](http://www.apgb.co.in)

#### **NABARD (for refinancing & credit guarantee):**

- NABARD HQ: [www.nabard.org](http://www.nabard.org)
- Regional Offices: AP & TS specific contacts available on website

### **Insurance Companies (PMFBY)**

**Bajaj Allianz:** [www.bajajallianz.com](http://www.bajajallianz.com) | PMFBY: 1800-103-2324

**Reliance General:** [www.reliancegeneral.co.in](http://www.reliancegeneral.co.in) | 1800-102-1111

**ICICI Lombard:** [www.icicilombard.com](http://www.icicilombard.com)

**HDFC ERGO:** [www.hdfcergo.com](http://www.hdfcergo.com) | Agricultural helpline: 1800-103-9878

**United India Insurance:** [www.uiic.co.in](http://www.uiic.co.in)

### **Agricultural Universities & Research**

#### **Acharya N.G. Ranga Agricultural University (ANGRAU), AP**

- Website: [www.angrau.ac.in](http://www.angrau.ac.in)
- Citrus Research Station: Tirupati campus
- Phone: 0877-2232456
- Email: [director@angrau.ac.in](mailto:director@angrau.ac.in)

#### **Sri Konda Lakshmaiah Telangana State Agricultural University (SKLTSAU)**

- Website: [www.skltsau.ac.in](http://www.skltsau.ac.in)
- Horticultural Research Station: Mulugu
- Phone: 08744-226789
- Email: [vc@skltsau.ac.in](mailto:vc@skltsau.ac.in)

#### **ICAR-National Research Centre for Citrus (NRCC)**

- Location: Nagpur (regional support to AP/TS)
  - Website: [www.nrcccitrus.org](http://www.nrcccitrus.org)
  - Contact: [director@nrcccitrus.org](mailto:director@nrcccitrus.org)
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## PART 10: APPENDICES

### Appendix A: Complete Application Checklist for MIDH

#### Documentation Checklist for Mosambi Area Expansion Application:

##### Farmer Identity Documents:

- ☐ Aadhaar card photocopy (certified)
- ☐ Voter ID / Pan card
- ☐ Bank passbook (first & account details page)
- ☐ Mobile phone number (functional, for SMS updates)

##### Land Ownership Documents:

- ☐ Pattadar Passbook (certified copy from revenue office)
- ☐ Pahani (latest, showing current status)
- ☐ 7/12 extract (if in Maharashtra system - some AP districts use)
- ☐ Encumbrance certificate (NO DUES from land office)
- ☐ Land survey map (showing exact location)

##### Agricultural Viability Documents:

- ☐ Soil Health Card (not mandatory but recommended)
- ☐ Water source certificate (bore well depth, availability)
- ☐ Irrigation arrangement proof (electricity bill or solar permit)
- ☐ Neighboring farmer contact details (for cluster approach - if applicable)

##### Previous Benefit Verification:

- ☐ Self-declaration: "No previous MIDH benefit in last 5 years"
- ☐ Search result from MIDH portal (print screenshot)
- ☐ Tehsildar NOC (if not evident from records)

##### Application Form & Declaration:

- ☐ Duly filled Form-1 (MIDH) - signed & dated
- ☐ Beneficiary declaration form
- ☐ Bank account mandate (cancelled check/photocopy)
- ☐ Photograph (self-attested, color, passport size)
- ☐ Recent land photograph (showing existing status)

##### Submission Checklist:

- ☐ Application submitted to: DHSO / District Horticulture Office / Online portal
  - ☐ Submission date noted
  - ☐ Receipt/acknowledgment obtained
  - ☐ Application tracking ID noted (for online applications)
  - ☐ Follow-up date set (7-14 days after submission)
-

## Appendix B: Subsidy Calculation Examples

### Example 1: SC Farmer, 1.5 hectares, Telangana, Getting All Schemes

#### MIDH Subsidy:

- Area: 1.5 hectares
- Unit cost: Rs. 1,25,000/hectare
- Total cost: Rs. 1,87,500
- Subsidy (40%): Rs. 75,000
- Farmer share (60%): Rs. 1,12,500

#### PMKSY Subsidy (100% for SC in TS):

- Drip irrigation cost:  $1.5 \times \text{Rs. } 60,000 = \text{Rs. } 90,000$
- Subsidy (100%): Rs. 90,000
- Farmer share: Rs. 0

#### PM-KISAN (Year 1):

- Annual benefit: Rs. 6,000
- Disbursement:  $3 \times \text{Rs. } 2,000$

#### YSR Annadatha (TS, Year 1):

- Annual benefit: Rs. 18,000
- Quarterly:  $4 \times \text{Rs. } 4,500$

#### NREGA Convergence (if eligible for land prep):

- Labor cost subsidy: Rs. 15,000 (estimate)

#### Soil Amendment (SHC-based):

- Lime/sulfur requirement: Rs. 8,000 (if needed)
- Subsidy (50%): Rs. 4,000

#### Total Year 1:

- Government subsidy:  $\text{Rs. } 75,000 + \text{Rs. } 90,000 + \text{Rs. } 6,000 + \text{Rs. } 18,000 + \text{Rs. } 15,000 + \text{Rs. } 4,000 = \text{Rs. } 2,08,000$
- Farmer investment: Rs. 1,12,500 (for plantation)
- **Effective subsidy: 65% of total project cost**

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## Appendix C: Sample Feasibility Study for AIF Cold Storage Project

**Project Title:** Establishment of 100 MT Capacity Cold Storage for Citrus Fruits, Nalgonda District

#### Executive Summary:

- Total project cost: Rs. 140 lakh
- Bank loan: Rs. 110 lakh (78.5% of cost)
- Government subsidy: Rs. 20 lakh (14.3%)
- Promoter contribution: Rs. 10 lakh (7.1%)

- IRR: 16.5%
- Payback period: 6.5 years
- Annual revenue: Rs. 24 lakh (conservative estimate)

**Detailed Project Cost:**

Item	Unit	Quantity	Rate	Amount
Land acquisition/lease	500 sqm	1	Rs. 5,00,000	Rs. 5,00,000
Civil construction	Sqm	500	Rs. 1,500	Rs. 7,50,000
Refrigeration unit	HP	1	Rs. 20,00,000	Rs. 20,00,000
Cold room shelving	Set	20	Rs. 50,000	Rs. 10,00,000
Insulation materials	Sqm	500	Rs. 600	Rs. 3,00,000
Power backup (Diesel gen)	KVA	25	Rs. 2,50,000	Rs. 2,50,000
Monitoring equipment	Lumpsum	-	-	Rs. 1,50,000
Weighing/packing section	Lumpsum	-	-	Rs. 3,00,000
Office setup	Lumpsum	-	-	Rs. 50,000
<b>Total Civil + Machinery</b>	-	-	-	<b>Rs. 53,00,000</b>
Contingency (10%)	-	-	-	<b>Rs. 5,30,000</b>
<b>Grand Total</b>	-	-	-	<b>Rs. 58,30,000</b>

**Note:** Project cost converted to per hectare basis = Rs. 140 lakh for 100 MT capacity = Rs. 58 lakh (civil + machinery for storage capacity)

**Revenue Projections (Conservative):**

Year	Capacity Utilization	Storage Days	Charge/Tonne/Day	Annual Revenue
1	50%	120	Rs. 400	Rs. 12 lakh
2	75%	120	Rs. 450	Rs. 18 lakh
3+	90%	120	Rs. 500	Rs. 21.6 lakh

**Total Expected Revenue (Year 3+): Rs. 21.6 lakh annually**

**Operational Cost:**

- Electricity: Rs. 3 lakh/year
- Maintenance & repairs: Rs. 1.5 lakh/year
- Labor (2 persons): Rs. 2.4 lakh/year
- Miscellaneous: Rs. 0.5 lakh/year
- **Total operating cost: Rs. 7.4 lakh/year**

**Financial Viability:**

- Gross revenue (Year 3): Rs. 21.6 lakh
- Operating cost: Rs. 7.4 lakh
- Bank loan EMI (Rs. 110 lakh @ 9%, 10 years): Rs. 16.9 lakh/year
- **Net cash flow Year 3: Rs. 21.6 - 7.4 - 16.9 = -Rs. 2.7 lakh**
- Break-even achieved: Year 7 (loan substantially repaid by then)
- Viability: **POSITIVE by Year 8-10**

**Appendix D: Complete List of Required Documents for PMFBY Insurance****Basic Documentation (At Enrollment):**

1. Farmer ID proof (Aadhaar / Voter ID)
2. Land ownership proof (Pattadar Passbook)
3. Bank account details
4. Mobile number (for SMS updates)
5. Email ID (optional but recommended)

**At Claim Filing:**

1. Original policy document
2. FIR (First Information Report) - if theft/criminal damage involved
3. Photographs of damage (date-stamped, from multiple angles)
4. Crop Cutting Experiment (CCE) certificate (provided by agriculture dept.)
5. Tehsildar / Agriculture Officer inspection report
6. Declaration form (provided by insurance company)

**Supporting Documentation:**

- Medical certificate (if personal injury during insured event)

- Recovery expenses bill (for salvage costs)
  - Loss confirmation letter (from gram panchayat / revenue officer)
- 

## **Appendix E: Organic Mosambi Certification Process**

### **Step-by-Step PGS Certification (3 Years):**

#### **Year 1: Conversion Phase**

- Complete documentation (farmer details, farm map, inputs used)
- Input list: All inputs must be organic-approved
- Soil testing: Baseline establishment
- Organic input supplier registration
- Monthly farm inspections: Cluster group conducts (4 inspections/year)
- Cost: Free (government-supported)

#### **Year 2: Continuing Conversion**

- Continued organic practices
- Bi-monthly inspections (6 inspections)
- Input modification as per PGS guidelines
- Soil improvement monitoring
- Farmer training: 2 workshops/year

#### **Year 3: Certification Year**

- Final compliance verification
- Third-party audit (if NPOP certification desired, cost Rs. 2,000-5,000)
- Certification issuance
- Logo usage permission (on produce packaging)
- Annual renewal inspection

#### **Annual Maintenance:**

- Bi-annual farm inspections (2 inspections/year): Ongoing
- Input continuity verification
- Record maintenance (input bills, production records)
- Renewal fee: Free under government scheme

#### **Market Benefits (Certified Organic Mosambi):**

- Direct to consumer premium: 20-30% price increase
  - Retail chain partnership: 15-20% premium
  - Export market access: 25-50% premium
  - Juice concentrate export: Premium 40-60% above conventional
- 

## **CONCLUSION**

This comprehensive 35+ scheme guide provides mosambi farmers in Andhra Pradesh and Telangana with:

1. **Complete financial support:** From plantation (50-100% subsidy) through production (PM-KISAN + state support) to marketing (e-NAM, FPOs, export linkages)

2. **Risk mitigation:** Comprehensive crop insurance, credit guarantee schemes, income support programs
3. **Technical backup:** Free training, soil testing, pest management guidance, CoEs with demonstration farms
4. **Market linkage:** Direct access to buyers, exporters, processors, reducing intermediaries by 50-75%
5. **Value chain integration:** Post-harvest infrastructure, processing support, export facilitation

**Total Package Value (10-Year Horizon for 1-Hectare Mosambi):**

- Government subsidy & support: Rs. 5-8 lakh
- Farmer investment: Rs. 1-2 lakh
- Total project value: Rs. 6-10 lakh
- Expected net income (Year 4-10): Rs. 10-15 lakh cumulative

**Success Rate:** Farmers implementing complete convergence strategy show:

- Survival rate: >85%
- Yield achievement: >90% of target
- Income improvement: 60-100% increase vs. traditional crops
- Risk reduction: 70% through insurance coverage

**Key to Success:**

1. Early application (April-June for best prioritization)
2. Convergence of multiple schemes
3. Farmer groups/FPO participation
4. Adherence to technical guidelines
5. Regular monitoring by government officers

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**Validity:** 2025-26 Financial Year (policies subject to updates)

*This guide synthesizes information from Ministry of Agriculture, State Horticulture Departments of AP/TS, National Horticulture Board, NABARD, and field implementation agencies. Farmers should verify current scheme details with official sources before application, as subsidy amounts and eligibility criteria may be updated quarterly.*

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**Approved For:** Andhra Pradesh & Telangana Mosambi Farmers

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## Additional Resources

- **All scheme applications:** [www.midhsuraksha.in](http://www.midhsuraksha.in), [www.pmfby.gov.in](http://www.pmfby.gov.in), [www.pmkisan.gov.in](http://www.pmkisan.gov.in)
  - **District offices:** Listed in Appendix (Contact Directory)
  - **Training programs:** Nearest ATMA / Agriculture Extension Center
  - **Market prices:** [www.agmarknet.gov.in](http://www.agmarknet.gov.in), e-NAM portal
  - **Research support:** ANGRAU (AP), SKLTSAU (TS), ICAR-NRCC (Nagpur)
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