



**Implementing Best Practices  
Challenges and Perspectives for Ensuring Farmer Returns**

# TOBACCO: **Production Challenges**

Uncertainties makes tobacco cultivation complicated at every stage.



**Small Farms**



**Yields & Rising Cost**



**Climate Change**



**Lack of Infrastructure**



**Labour Shortage**

# TOBACCO: **Dynamic Customer Requirements**

**Crop alignment as per customer requirement**



**QUALITY**

**COMPLIANCE**

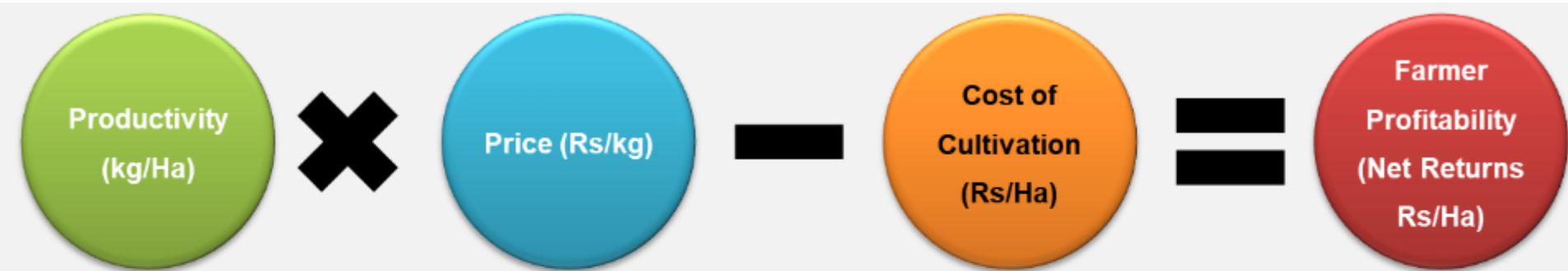
**CONSISTENCY**

**CUSTODY**



**Ensuring farmer returns (Sustainable Rural Livelihoods) is the key to protect tobacco industry.**

# AGRI EXTENSION - APPROACH



## Risk Mitigation

(Insurance, Resource optimization, institutional support)

# Implementing Best Practices in Tobacco Cultivation

## Tobacco Sector Journey .....

FCV tobacco is the **Perfect Model of Agri Extension** in the country....

**Tobacco Board**



**ITC R&D**



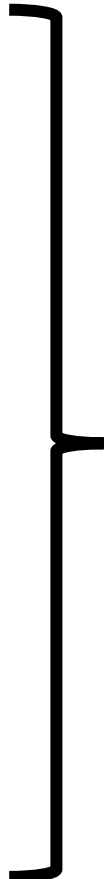
**ITC Crop Development**



**Central Tobacco Research Institute (CTRI)**



**Trade**



# Key Achievement of Agri Extension .....



- 100% farmers touched with training programme



- 98% farmers use High Yielding Variety / Hybrids



- 70% Farmers covered with Tray Seedling



- 30% barns covered with energy conservation measures

# GOING FORWARD.....

Resource use efficiency to achieve higher Total Factor Productivity (TFP) will ensure farmer returns.





# AGRICULTURE - TRANSFORMATION CHANGES



**1.0**



**2.0**



**3.0**



Seed & Fertilizer

- Conventional Farming

Irrigation & Mechanization

- Productivity Improvement

Precision Farming

- Total Factor Productivity (TFP)



## Digital Technology in Tobacco Farming

Digital Crop Monitoring + Customized Crop Advisory + Data based process management.

# DIGITAL CROP MONITORING



Farmer Enrolment / Geotagging



Expert Advice  
Good Agricultural Practices



Weather Update



Pest / Disease Management



Input Recommendation



Monitoring / Alerts



Custody of Supplies



Farm Monitoring

# Digital & precision solutions which can change tobacco farming in the country....



**Farm Mechanization Solutions**



**Biodegradable Mulch**



**Smart Irrigation**



**Pest Monitoring & Pest Free Solutions**



**IOT Devices**



**IOT Barn Monitors**



**Customized Fertilizer Solutions**



**Drones**

# WAY FORWARD STRATEGY – FARMER RETURNS



**1. Micro zone specific varieties**

**2. Total Factor productivity to optimize input utilization and leverage the genetic potential**

**3. Ease of farming - mechanization**

**4. Crop Insurance**

**Open for Discussion**

**Thank You**



# FARM PRODUCTIVITY

## Deployment of region specific interventions to improve farm productivity



**Soil  
Conservation &  
Management**



**High Yielding  
Variety**



**Tray Seedling**



**Region Specific  
Agronomy**





# Improving post harvest infra to reduce NTRM incidence



Weighting Scale

Grading Table

Bale Box

NTRM Bin

Tarpaulin

# CPA FREE DELIVERY – ACTIONS



**Education  
Individual Famer Level  
Engagement**



**Collaboration  
Village wise distribution channel  
for safe CPAs**



**Monitoring  
Scouting Centers & Intra Village  
Grouping**



**Reinforcing  
Heightened Vigilance**



# COST OF CULTIVATION REDUCTION



<b>Total Barns under Energy Conservation</b>	<b>30,045</b>
<b>Fuel Wood Savings (M.Kg)</b>	<b>105</b>
<b>Total Savings (Rs. Cr)</b>	<b>35</b>



<b>Drip Savings Per (Rs./Ha)</b>	<b>7120</b>
<b>Total Hectare</b>	<b>6500</b>
<b>Total Savings (Rs. Cr)</b>	<b>4.6</b>