1. How the Identification System Reduces Risks

Integrating the identification system with key farm areas (irrigation, solar energy, fruit management, water control) helps reduce multiple risks:

• Connected Irrigation:

- **Without identification**: Risk of over- or under-watering due to a lack of precise monitoring.
- **With identification**: Only authorized operators control irrigation, preventing human errors and water waste.

• Solar Energy:

- **Without identification**: Poor energy management, unused equipment, or overconsumption.
- o **With identification**: Precise control of energy use by trained operators.

• Fruits & Crops:

- **Without identification**: Poor resource management, crop losses due to human errors.
- With identification: Automated plant recognition to adjust water and fertilizer needs.

2. Economic Impact: With vs. Without Connected Irrigation

Scenario	Irrigation Cost	Agricultural Yield	Revenue Generated
Without connected irrigation	Low cost (manual)	30-40% crop loss	Limited revenue
With connected irrigation	Initial investment, but optimized	+30% yield (less water waste)	Increased profit

Connected irrigation increases profit by optimizing water use and reducing crop losses.

3. SWOT Analysis With Mitigation Measures

Factor	Strengths	Weaknesses & Mitigation	Opportunities	Threats & Mitigation
Connected System	Resource optimization	High initial cost → Subsidies & agricultural grants	Automation & AI	Tech dependency → Manual backup plans
Security	Controlled access to equipment	Requires training → Simplify user interface	Protects infrastructure	Cyber risks → Firewalls & cybersecurity protocols
Irrigation	Reduced water waste	Requires maintenance → Self-diagnostic sensors	Increased yield	Climate change → Predictive climate sensors

With connected identification, the farm improves efficiency, profitability and safety. Risks are reduced by guaranteeing secure access to resources, and maximizing yields through automated, optimized management.

One of my suggestions would be to implement AI-based predictive analysis to anticipate irrigation and energy needs.