Fachs Pvt Ltd on behalf of Canhem Pvt Ltd

Integrated water harvesting plan for Canhem Private Limited

Water harvesting and conservation are crucial for sustainable agriculture.

Water Harvesting Components

1. Rainwater Harvesting:
   - Roof catchment (greenhouse and other buildings)
   - Gutters and downspouts
   - Storage tanks (minimum 100,000 liters)
2. Greenhouse Condensate Harvesting:
   - Collecting condensation from greenhouse roofs and walls
   - Channelling to storage tanks
3. Surface Water Harvesting (optional):
   - Collecting runoff from nearby surfaces (e.g., parking areas)
   - Channelling to storage tanks
4. Groundwater Recharge (optional):
   - Recharging groundwater aquifers through infiltration trenches

Water Storage and Distribution

1. Storage Tanks:
   - Multiple tanks for rainwater, condensate, and surface water
   - Total capacity: minimum 20,000 liters
2. Distribution System:
   - Pumps and pipes for irrigation and other uses
   - Gravity-fed system for efficient water distribution

Water Conservation Measures

1. Drip Irrigation:
   - Efficient water delivery to plants
   - Reduced evaporation and runoff
2. Mulching:
   - Soil moisture retention
   - Reduced evaporation
3. Crop Selection:
   - Drought-tolerant and water-efficient crops
4. Greenhouse Climate Control:
   - Optimized temperature and humidity management

- Reduced water loss through evapotranspiration

Greenhouse Water Harvesting Design

1. Greenhouse roof design for optimal water collection
2. Gutters and downspouts for efficient water channelling
3. Condensate collection system
4. Integration with storage tanks and distribution system

Implementation Plan

1. Conduct site assessment and feasibility study
2. Design and install water harvesting system
3. Implement water conservation measures
4. Monitor and maintain system efficiency

Budget Estimate

1. Water harvesting system: $1,000 - $3,000
2. Storage tanks: $1,000 - $3,000
3. Distribution system: $500 - $1,000
4. Water conservation measures: $1,000 - $2,000

Total: $3,500 - $9,000

Return on Investment (ROI)

1. Reduced water bills
2. Increased crop yields
3. Improved water security
4. Enhanced environmental sustainability