



**CHALLENGES IN PEPPER
HARVESTING**

THEME: AGRICULTURE & ALLIED SECTORS



CHALLENGES IN PEPPER HARVESTING

STAKEHOLDER

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Core Issue

Harvesting pepper is risky and inefficient because the crop is grown on tall areca trees, making it inaccessible from the ground. Farmers depend on skilled laborers who must climb ladders or the trees themselves, securing bags around their waists to hand-pick and collect pepper bunches. This process is

physically demanding, time-consuming, and prone to accidents falls from height can cause serious injuries, Additionally, the manual methods and cumbersome tools reduce overall harvesting efficiency, making it difficult for farmers to maintain productivity while ensuring laborer safety.

Constraints

- Pepper is grown on tall areca trees, making ground-level harvesting nearly impossible.
- Existing tools are cumbersome and not optimized for intercropped systems or high-altitude harvesting.
- Hiring skilled labor consistently increases operational costs for farmers.
- Wet or slippery conditions make climbing and harvesting even more dangerous.

Context

Pepper is a high value spice widely grown in Tumakuru district, often intercropped with tall areca trees to make efficient use of farmland. While this system is good for land productivity, it makes harvesting very difficult because the pepper vines are out of reach from the ground. Farmers rely on skilled laborers who climb trees or ladders and use bags and tools to collect pepper by hand. This work is tiring, slow, and falls and injuries are common. The traditional methods also reduce harvesting efficiency, making it hard for farmers to collect large quantities safely and on time, while maintaining quality.

Groundwork to be considered

- Observe current pepper harvesting practices, including climbing methods, ladder use, and hand-picking techniques.
- Study the availability of existing tools used for plucking pepper in pepper farms.
- How can we reduce the physical effort and time required to collect pepper manually?
- Explore local traditional drying and post-harvest practices.



Existing Systems

1. Black Pepper Plucking and Separating Machine

- A motorized device with a conical chamber and wooden conical part.
- The machine agitates pepper bunches, separating the corns from the spikes.
- Separated pepper grains flow through an aluminium pipe and are collected in a bag

2. Household Pepper Harvesting Tool

- A manual plucking tool with spikes/teeth that trap pepper grains which includes a triangular cup that helps collect pepper.

3. Read more here: [Link](#)