Project Title

# VERMI COMPOSED ROTATOR

## Problem Statement

Excessive reliance on chemical fertilizers and pesticides in modern agriculture is steadily degrading soil structure, reducing natural fertility, and contaminating rivers, lakes, and groundwater. These practices disrupt ecosystems, kill beneficial insects and microorganisms, and accelerate biodiversity loss. Farmers face rising costs and dependency on external inputs, while communities experience food safety risks and health concerns. Without changes, long term productivity, environmental balance, and rural livelihoods remain under serious threat. Immediate global action is urgently needed.

## Project Team



TEAM 1 - A.P.J.ABDUL KALAM

## Team Members

Rakshitha N
Rakshitha M
Navaneeth Kumar N
Nithin N M
Phai Nareyana

SDG 2 Zero Hunger

SDG Goals

SDG 12 – Responsible Consumption and Production

## Solution

Controlled Chemical Dispensing Unit for Agriculture is an intelligent system that measures, calibrates, and delivers precise amounts of fertilizers and pesticides according to real time soil data, crop type, growth stage, and weather conditions. Using sensors, simple analytics, and farmer friendly controls, it minimizes waste, lowers costs, and protects soil microbes, water quality, and biodiversity. The unit can be retrofitted to existing equipment, powered by affordable energy sources, and supported by training so smallholders can adopt it easily. Over time it builds healthier soils, safer food, and stable yields while reducing pollution and input dependency.This solution encourages innovation and equity. worldwide.

