# Project Design Phase-I

## Problem Solution Fit

| Date | 03 October 2022 |
|------|-----------------|
| Team ID | PNT2022TMID17295 |
| Project Name | IoT Based Smart Crop Protection System For Agriculture |

**Define CS, fit into CL**

### 1. CUSTOMER SEGMENT(S)  CS

Farmer's ! Who's not near his field in corporate,SME and farmer.

### 6. CUSTOMER LIMITATIONS  EG. BUDGET, DEVICES  CL

1)High adoption costs , security concerns.
2)Not aware of the implementation of IoT in agriculture.
3) Use it according to the climate change

### 5. AVAILABLE SOLUTIONS  PLUSES & MINUSES  AS

Monitor different parameters and mobile or web application make easily to farm the crop field .

**Explore AS, differentiate**

**Focus on PR, tap into BE, understand RC**

### 2. PROBLEMS / PAINS + ITS FREQUENCY  PR

- Control system of the mechanism is difficult
- Ain't known if the application doesn't work properly.

### 9. PROBLEM ROOT / CAUSE  RC

If temperature ,PH level ,humidity & light intensity makes the serious cause for the environment.

### 7. BEHAVIOR + ITS INTENSITY  BE

Located in rural where internet connectivity might not be strong enough to facilitate fast transmission speeds.

The cutomer will give the proper products in the crop.

**Focus on PR, tap into BE, understand RC**

**Identify strong TR & EM**

### 3. TRIGGERS TO ACT  TR

Create opportunities to lift people out of poverty in developing nations.smart farming reduces the ecological footprint

### 4. EMOTIONS  BEFORE / AFTER  EM

**BEFORE**: Finances, Heavy work overload and conflict in relationship.
**AFTER**: people get more info about crop protection make esay to yeild.

### 10. YOUR SOLUTION  SL

**"IoT based Smart crop protection system for agriculture"**
It help farmers grow more food on less land by protection crops from pests, diseases and weeds as well as raising productivity per hectare.

the sensorsand drones sensed information from field and protect the crop.

### 8. CHANNELS of BEHAVIOR  CH

**ONLINE:** The Data send through application and sensor data will send to the farmer.

**OFFLINE**: The control action is taken by the farmers to monitor the farms.through the immediate reaction.

**Extract online & offline CH of BE**