**Project Title:** **Iot Based Smart crop protection system**    **Project Design Phase-I - Solution Fit Template**    **Team ID:** PNT2022TMID48513

**Define CS, fit into CC**

**CS**
1.  **CUSTOMER SEGMENT(S)**
- Farmers who trying to protect crops from various problems

**6. CUSTOMER CONSTRAINTS** **CC**
- High adoption costs, more power and security concerns.
- Lack of man power.
- Limited supervision.

**5. AVAILABLE SOLUTIONS** **AS**
- Automation in irrigation
- Monitor different parameters by mobile or web application which helps to earn the crop yield.

**Explore AS, differentiate**

**Focus on J&P, tap into BE, understand RC**

**J&P**
**2. JOBS-TO-BE-DONE / PROBLEMS**
- Crops are not irrigated properly.
- Improper maintenance of crops.
- To increase the commodity, import, export and make profit for farmers.

**9. PROBLEM ROOT CAUSE** **RC**
- The main cause of the problem is crops in farms are many times ravaged by local animals like cow, goat, bird etc.,
- Due to insufficient labour forces.

**7. BEHAVIOUR** **BE**
- Consumes more time in crop land.
- Searching for an alternative Solution for an existing solution.

**Focus on J&P, tap into BE, understand RC**

**Identify strong TR & EM**

**3. TRIGGERS** **TR**
- By seeing surrounding crop land with installing machines.
- Hearing about innovative technologies and effective solutions.

**10. YOUR SOLUTION** **SL**
- IOT based fertilizing methods are followed, to minimize the negative effects on growth of crops while using fertilizer

**8.CHANNELS of BEHAVIOUR** **CH**
ONLINE: The data send through application to the farmers to know about the farms.
OFFLINE: The control action is taken by the farmers to monitor the farms.

**4. EMOTIONS: BEFORE / AFTER**  EM

- Mental frustrations due to insufficient production of crops.
- Felt smart enough to follow the available technologies with minimum cost.

- Image processing techniques with IOT is followed for crop protection against animal attacks.