PROJECT DESIGN PHASE-I SOLUTION FIT TEMPLATE

PROJECT TITLE: IOT BASED SMART CROP PROTECTION SYSTEM

TEAM ID: PNT2022TMID27900

Define CS, fit into CC

1. CUSTOMER SEGMENT(S):

CS

- Farmers in rural areas.

6. CUSTOMER CONSTRAINTS:

CC

- Manpower is required 24/7.
- Fear of advanced technology.

5. AVAILABLE SOLUTIONS:

AS

- Using scarecrow or different methods the farmer will prevent crop from birds.
- The farmer will randomly irrigate the crop.

Explore AS, differentiate

Focus on J&P, tap into BE, understand

2. PROBLEMS:

J&P

- Entire time the farmer would not be able to monitor the field from animals and birds.
- Crops will get spoilt if irrigation is done failed to check the moisture level.

9. PROBLEM ROOT CAUSE:

RC

- Animals and birds entering the agricultural fields.

7. BEHAVIOUR:

BE

- Direct: If any malfunction occurs customers can report to the concerned manufacturer.
- Indirect: Farmers can go to local shops.

Focus on J&P, tap into BE, understand

Identify strong TR & EM

3. TRIGGERS: TR

- Threat caused by animals to life trigger them to find a solution.
- Improper water supply without knowing moisture level causes loss in production trigger to find a solution.

4. EMOTIONS: BEFORE /AFTER EM

- Before: The farmer feels depressed due to the reduction in yield caused by animals and birds.
- After: They feel satisfied and happy due to the increased production.

10. YOUR SOLUTION: SL

The key research objectives are as follows:

- The proposed system detects Movement of animals and birds which destroy crops and turns on the alarm.
- This system also helps farmers to Monitor the soil moisture levels in the field and temperature and humidity values near the field.
- In the proposed system, it will sense moisture level by placing the sensors at the required position, which automatically sprinklers.

8. CHANNELS OF BEHAVIOUR: CH

- Online: Share their problems and requirements through social media.
- Offline: The farmer shares their queries with government officials.