Project Title: : IOT BASED SMART CROP PROTECTION SYSTEM FOR AGRICULTURE
Project Design Phase-I-Solution Fit Template

Team ID: PNT2022TMID20272

727819TUEC212	SANKAMITHRA SU-TM
727819TUEC232	SOWMIYA K-TM
727819TUEC241	SWEDHA D-TL
727819TUEC248	VIJAYA DHARSHINI R-TM

Define CS, fit into CC

Explore AS, differentiate

1. CUSTOMER SEGMENT(S) — CS

Farmers

6. CUSTOMER CONSTRAINTS — CC

Lack of proper irrigation facilities, production machinery, and access to institutional credit, difficulties procuring inputs and storing products, and negative impacts of climate.

5. AVAILABLE SOLUTIONS — AS

System that is built for monitoring the crop field with the help of sensors and automating the irrigation system The processes like pest control, fertilizing, and irrigation are increasingly becoming automated, and farmers can control them remotely. The use of smart IoT sensors can maintain these processes, increasing crop production the announcement of the threshold rate will be sent to the cell number or to the website. The result will be generated on a catalog of the mobile of the person to take the necessary action.

2. JOBS-TO-BE-DONE / PROBLEMS `J&P`

Crops in the farm are many times devastated by the wild as well as domestic animals and low productivity of crops is one of the reasons for this. It is not possible to stay 24 hours in the farm to guard the crops.An intelligent crop protection system helps the farmers in protecting the crop from the animals and birds which destroy the crop.This system shall also include remote monitoring and control of pump to avoid the farmer to visit the farm in nighttime.

9. PROBLEM ROOT CAUSE `RC`

Crop invasions by animals are a common and serious problem that causes major losses. Buffaloes, pigs, goats, birds, and fire have all caused damage to farm crops in the past.

7. BEHAVIOUR `BE`

What does your customer do to address the

largely questionnaire-based methodology that focuses "on the motives, values and attitudes that determine the decision-making processes of individual farmers.

Identify strong TR & EM

3. TRIGGERS `TR`

Without food, we could not survive. As the provider of food it is a cornerstone of human existence

4. EMOTIONS: BEFORE / AFTER `EM`

Common farm stressors are finances, daily hassles, and lack of control over the weather, heavy work overloads, and conflict in relationships. BEFORE: The agricultural cycle is the annual cycle of activities related to the growth and harvest of a crop (plant). These activities include loosening the soil, seeding, special watering, moving plants when they grow bigger, and harvesting, among others. Without these activities, a crop cannot be grown. AFTER: After harvest, farmers might work stalks into the ground, chop them for livestock, let cattle graze them in the field or leave them completely undisturbed, allowing corn residue to cover the field.

10. YOUR SOLUTION

`SL`

System that is built for monitoring the crop field with the help of sensor. The IOT device is used to indicate The farmer by a message while someone enter into the Farm and we are used SD card module that helps to Store a specified sound to fear the animals. The announcement of the threshold rate will be sent to the cell number or to the website. The result will be generated on a catalog if the mobile of the person to take the necessary action.

8.CHANNELS of BEHAVIOUR

ONLINE: involve and engage small farmers to work with an online platform to sell their products.

OFFLINE: Farmers sell their products directly to consumers through several outlets Farmer-toconsumer direct marketing is a way by which farmers sell their products directly to consumers.