protocols.

## 1. CUSTOMER SEGMENT(S)

IoT-based smart farming is a network typically

designed with sensors (light, humidity, temperature, soil

moisture, etc.) to monitor the crop field and automate

farming activities. The farmers are able to track the

CS

# 6. CUSTOMER CONSTRAINTS

These devices have no idea about the security and they don't

have enough resources to handle extra functionalities and

 $\mathbf{CC}$ 

## 5. AVAILABLE SOLUTIONS

AS

Explore AS, differentiate

Focus on J&P, tap into BE, understand

Extract online & offline CH of BE

We using ARDUINO, so the farmers get alarm when the animals are crossed.

### **ADVANTAGE**

With the implementation of IoT in agriculture, processes are managed more effectively in the field. With the aid of sensors, for example, it is possible to monitor soil quality, humidity, temperature, automate the irrigation process, and others.

## 2. -TO-BE-DONE / PROBLEMS

conditions in the field from anywhere.

J&P

# 9. PROBLEM ROOT CAUSE

RC

# 7. BEHAVIOUR

 $\mathbf{BE}$ 

Find the right sensor, customers spent free time on volunteering work, it collects all data information.

Crops in farms are many times ravaged by local animals like buffaloes, cows, goats, birds, and fire etc. This leads to huge losses for the farmers. It is not possible for farmers to barricade entire fields or stay on field 24 hours and guard it. So here we propose automatic crop protection system from animals and fire

## RCA can be decomposed into four steps:

- > Identify and describe the problem clearly.
- Establish a timeline from the normal situation until the problem occurs.
- Distinguish between the root cause and other causal factors (e.g., using event correlation).
- Establish a causal graph between the root cause and the problem.

TR

# 10. YOUR SOLUTION

SL

# It is worth pondering how farmers have been managing crop health in recent times as the demand for food is increasingly growing with an upsurge in the human population. Previously, it was not considered much challenging to manage everything manually, but with the growing production, population, and demand, it is now becoming quite difficult for the farmers to keep a proper check on the quality of the crops.

# 3. TRIGGERS

IoT Accelerator provides the possibility to manage triggers through the service portal and APIs. A trigger can be defined to automate events (notifications or actions) and can eliminate the

### 4. EMOTIONS: BEFORE / AFTER

need to manually monitor subscriptions

EM

Before this project farmers should be monitoring the crops 24 hours but after this project the farmers are able to track the conditions.

## 8. CHANNELS OF BEHAVIOUR



ONLINE

The cloud and IOT for tracking, monitoring, automating and analyzing operations. Smart farming is software Managed and sensor monitored.

## **OFFLINE**

Water, light, humidity and temperature management are also important in smart farming



