Project Title: IOT Based Smart Crop Protection System For Agriculture **Project Design Phase-I - Solution Fit** **Team ID: PNT2022TMID44252**

Define CS, fit into CC

1. CUSTOMER SEGMENT(S) CS

Farmers who want to protect their crops from animals without hurting them

6. CUSTOMER CONSTRAINTS CC

constraints prevent the customers from taking action or limit their choices
of solutions

- Lack of Infrastructure: Even if the farmers adopt IoT technology they won't be able to communicate
- High Cost: Equipment needed to implement IoT in agriculture is expensive
- Lack of Security: Since IoT devices interact with older equipment they have access to internet conectivity.

5. AVAILABLE SOLUTIONS AS

- Choosing the right hardware for An IoT ecosystem
- Best Connectivity
- Leveraging analytics
- Monitoring IoT architecture
- Ensuring data security

Explore AS, differentiate

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

J&P

2. JOBS-TO-BE-DONE / PROBLEMS

- Identify and evaluate risks posed by wild and domestic animals.
- Consider some methods to prevent animal entry through the use of fences, noise cannons, or other deterrents.
- Reduce or eliminate animal attractants like standing water, cull piles, and nesting areas.
- Monitor and document animal activity on the farm.
- Conduct field assessments before harvest

RC

9. PROBLEM ROOT CAUSE

The root cause for the problem is to

- To protect the crops from heavy rain fall and increase the yield.
- Generation of power .
- To protect cops
- To make the farming easy and efficient

BE

7. BEHAVIOUR

- By Smokeing to prevent animals
- Fish or garlic natural emulsion;
- Beehive fencing;
- Electric fences

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

Identify strong TR

3. TRIGGERS TR

It assisting farmers in trimming down generated wastes and boost productivity. Which is safe to both the animals and farmer.

4. EMOTIONS: BEFORE / AFTER EM

Before the farmers had losses and angry due to the spoiling of crops after solution is adapted

They spend their most time to enjoy and happy than repairing or watching crops.

10. YOUR SOLUTION SL

Based on the problems occurred to protct crops the IOT Smart Crop Protection System for Agriculture is used to protect crops from animals without affecting them.

8. CHANNELS of BEHAVIOUR CH

8.1 **ONLINE**

- using pesticides.
- biological pest control
- barrier based approaches such as Agro- Textiles

8.2 **OFFLINE**

- plant breeding and genetic modification
- Using Fences
- Using Noise buzzer
- Using Shield to prevent the animals

Identify strong TR