Project Title: **Project Design Phase-I - Solution Fit Template** **Team ID: PNT2022TMID34153**

Define CS, fit into CC

1. CUSTOMER SEGMENT(S) CS

□As is the case of precision Agriculture Smart Farming Technique Enables Farmers better to monitor the fields and maintain the humidity level accordingly.
□ The Data collected by sensors, In terms of humidity, temperature, moisture, and dew detections help in determining the weather pattern in Farms. So cultivation is done for suitable crops.

6. CUSTOMER CONSTRAINTS CC

□ Watering the field is a difficult process, Farmers have to wait in the field until the water covers the whole farm field.
□ Power Supply is also one of the problems. In Village Side, the power supply may vary.
□ The Biggest Challenges Faced by IoT in the Agricultural Sector are Lack of Information, High Adoption, Cost and Security Concerns, etc

5. AVAILABLE SOLUTIONS AS

ALERT MESSAGE – IoT sensor nodes collect information from the farming environment, such as soil moisture, air humidity, temperature, nutrient ingredients of soil, pest images, and water quality, then transmit collected data to IoT backhaul devices.
REMOTE ACCESS - It helps the farmer to operate the motor from anywhere.

Explore AS, differentiate

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

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

□ Reduces the wages for labors who work in the agricultural field.
□ It saves a lot of time.
□ IoT can help improve customer relationships by enhancing the customer's overall experience.
□ Easily identify maintenance needs, build better products, send personalized communications, and more.
□ IoT can also help e-commerce businesses thrive and increase sales.

9. PROBLEM ROOT CAUSE RC

Scalability in smart farming refers to the adaptability of a system to increase the capacity, for example, the number of technology devices such as sensors and actuators, while enabling timely analysis.

7. BEHAVIOUR BE

IOB technology gathers and processes data based on the users behaviour. This data is then linked with the IOT applications so the user are only recommended basis their choice of output Pretty soon, IOB technology will also be used to deliver users a better quality of life

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

Benefit

3. TRIGGERS This System uses a motion sensor to detect wild animals approaching near the field and smoke sensor to detect the fire. In such a case the sensor signal the micro controller to take action .so here we purpose automatic crop protection system from animals and fire.	**10. YOUR SOLUTION** IOT solution to enable the farmers to know real time weather conditions. The sensors placed in the agricultural fields collect data from the environment that is used by farmers to choose a crop that can grow in particular climatic conditions.	**CHANNELS of BEHAVIOUR** We all need food to survive. From human to animals, We are all a part of the food chain. No matter how far we progress in terms of technological inventions, we will still rely on our farmers to get fed.
4. EMOTIONS: BEFORE / AFTER IOT enabled growers and farmers to reduce Waste and enhance productivity ranging from the quantity of fertilizer utilized to amount of water used for irrigating of a field. In further ensures that farm produce is transported in the most optimal and manner.		