Problem-Solution fit canvas 2.0

Purpose / Vision

1.CUSTOMER SEGMENTS : `CS`
- ➢ Agriculturists
- ➢ Horticulturists

5.CUSTOMER CONSTRAINTS : `CC`

The IoT sensors used in proposed model are air temperature sensor, soil pH sensor, soil moisture sensor, humidity sensor, water volume sensor etc.

This IoT based system was successful in replicating a large scale smart farm environment considering the number of sensors.

8.AVAILABLE SOLUTIONS : `AS`

- Internet of Things (IoT) enables various applications of crop growth monitoring and selection, automatic irrigation decision support.
- Automatically irrigating the field. .

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

Smart farming envisages the harnessing of Information and Communication Technologies as an enabler of more efficient, productive, and profitable farming enterprises.

6. PROBLEM ROOT CAUSE : `RC`

Farmers must meet the changing needs of our planet and the expectations of regulators, consumers, and food processors and retailers. Farmers face a variety of issues, such as how to:
- • Handle soil erosion, climate change, and biodiversity loss
- • Meet shifting consumer preferences and expectations
- • Satisfy growing consumer demand for more nutritious food.

9. BEHAVIOUR `BE`

One of the greatest advantages of this smart irrigation system is its ability to save water. In general, traditional watering methods can waste as much as 50% of the water used due to inefficiencies in irrigation, evaporation and overwatering. Our system use sensors for real-time or historical data to inform watering routines and modify watering schedules to improve efficiency. Users can configure these systems to manage irrigation on demand
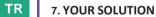

3.TRIGGERS : `TR`
- • Cope with climate change, soil erosion and biodiversity loss
- • Satisfy consumers' changing tastes and expectations

4. EMOTIONS: BEFORE / AFTER: `EM`

Farmers faced loss due to wrong prediction due to lack of knowledge in technology but now they can seek a hike in their initial investment in their field

7. YOUR SOLUTION `SL`

These sensors can be stationary or portables such as handheld probes. Stationary sensors are placed at the predetermined locations and depths in the field, whereas portable soil moisture probes can measure soil moisture at several locations. A temperature sensor is for detecting and measuring the hotness and coolness present in the environment and converts those inputs into an electrical signal. A humidity sensor is to detect and measure the water vapour or water droplets present in the atmospheric air and with those inputs it measures the humidity present in the air.

10.CHANNELS of BEHAVIOUR `CH`
- ➢ IOT Application
- ➢ Smart device
- ➢ Arduino IDE
- ➢ Android Studio

Farmers can monitor all the sensor parameters by using a web or mobile application even if the farmer is not near his field. Watering the crop is one of the important tasks for the farmers.