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# 1. CUSTOMER SEGMENT(S)

- Agriculturists
- horticulturists
- People who do small scale planting

## 6. CUSTOMER CONSTRAINTS

The effect of the network on the experiments was a significant and unexpected element.

Considering the quantity of sensors, this IoT-based system was successful in simulating a large-scale smart agricultural setting.

#### 5. AVAILABLE SOLUTIONS

- · Modernizing the currently used traditional agricultural techniques.
- Internet of Things (IoT) provides a number of applications. including automatic irrigation decision support and crop growth monitoring and selection.
- · Autonomous irrigation of the field.

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

The development of agricultural nations depends heavily on agriculture. Some agricultural-related concerns have consistently slowed down the nation's progress. Climate change, soil erosion, biodiversity loss, changing food preferences among consumers, and concerns over how food is produced all contribute to mounting pressures. Plants, pests, and diseases that are a part of the natural environment that farming must contend with continue to present difficulties.

#### 9. PROBLEM ROOT CAUSE

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Farmers must satisfy the demands of a changing environment, as well as those of regulators, consumers, food processors, and retailers. Farmers must deal with a number of challenges, including how to:

- Manage soil erosion, climate change, and biodiversity loss:
- Meet changing consumer preferences and expectations:
- Satisfy rising consumer demand for more nutrient-dense food..

#### 7. BEHAVIOUR

The ability of this intelligent irrigation system to conserve water is one of its major features. Generally speaking, typical watering techniques can waste up to 50% of the water they utilise owing to irrigation, evaporation, and overwatering inefficiencies. Our technology uses sensors to collect data in real-time or over time, modifying watering schedules as needed to increase efficiency. These systems can be configured by users to control irrigation as needed.

# 3. TRIGGERS

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strong

**Identify** 

Manage soil erosion, climate change, and biodiversity loss satisfy shifting consumer preferences and expectations meet the growing demand for more nutritious meals

#### 4. EMOTIONS: BEFORE / AFTER

Manage soil erosion, climate change, and biodiversity loss satisfy shifting consumer preferences and expectations meet the growing demand for more nutritious meals

#### 10. YOUR SOLUTION

We are about to suggest a method for using sensors like soil moisture sensors, temperature sensors, and a humidity sensor to monitor various field characteristics including soil moisture, temperature, and humidity. The amount of water in the soil is measured or estimated by capacitive soil moisture sensors. These sensors can either be fixed or mobile, like handheld probes. Portable soil moisture probes may monitor soil moisture at many sites, in contrast to stationary sensors, which are installed in the field at specified depths and locations.

### SI 8.CHANNELS OF BEHAVIOUR

- Even when the farmer is far from his field, he or she can use a web or mobile application to monitor all the sensor parameters. One of the crucial tasks for farmers is to water the crops.
- By keeping an eye on the sensor parameters and managing the motor pumps from the mobile application itself, they may decide whether to water the crop or delay it.