

Ideation Phase Problem Statements

Date	10 October 2022
Team ID	PNT2022TMID54368
Project Name	Smart Farmer-IoT Enabled Smart Farming Application
Maximum Marks	2 Marks

Customer Problem Statement:

Farmers must meet the changing needs of our planet and the expectations of regulators, consumers, and food processors and retailers.

There are increasing pressures from climate change, soil erosion and biodiversity loss and from consumers' changing tastes in food and concerns about how it is produced. And the natural world that farming works with – plants, pests and diseases – continue to pose their own challenges. Both new and seasoned farmers struggle with these problems.

Who does the problem affect?	Farmer
What are the boundaries of the problem?	Labor cost, Cope with climate change, soil erosion and biodiversity loss.
Problems farmers face?	climate change, soil erosion and biodiversity loss
When does the issue occur?	Increasing pressures from climate change, soil erosion, its mostly starts from first day farming
How Does it help?	Currently farmers follow Traditional Crop yielding pattern and irrespective of soil condition, farmers take routine crops. Losses in crop yielding and soil health gets affected. With the help of solution, farmer can plan which crop to take based on soil condition and plan quickly possible remedies for soil deficiencies.
Expected Output	Create app-based solution to detect soil parameters like moisture content, temperature, relative humidity.
What methodology used to solve the issue?	Some search results info from internet based on crop planted. Arduino microcontroller to control the process and various sensors for data. An alert message using GSM. An app built using MIT App Inventor.

Example:

Who is affected?	How is the farmer affected?	Methodology used to solve the issue?	How Does it help?	Expected Output
Farmer	climate change, soil erosion and biodiversity loss	An alert message using GSM. An app built using MIT App Inventor.	Farmer can plan which crop to take based on soil condition and plan quickly possible remedies for soil deficiencies.	Create app-based solution to detect soil parameters like moisture content, temperature, relative humidity. 