

# Project Design Phase-I

## Problem Solution Fit

Date	03 October 2022
Team ID	PNT2022TMID17351
Project Name	IoT Based Smart Crop Protection System For Agriculture

Define CS, fit into CL	<b>1. CUSTOMER SEGMENT(S)</b> <span>CS</span> The customers who are going to adapt this project contains of  Large scale farmers .	<b>6. CUSTOMER LIMITATIONS</b> <small>EG. BUDGET, DEVICES</small> <span>CL</span> 1)High adoption costs , security concerns. 2)Not aware of the implementation of IoT in agriculture. 3) Use it according to the climate change	<b>5. AVAILABLE SOLUTIONS</b> <small>PLUSES &amp; MINUSES</small> <span>AS</span> Monitor different parameters and mobile or web application make easily to farm the crop field .	Explore AS, differentiate
	<b>2. PROBLEMS / PAINS</b> <small>+ ITS FREQUENCY</small> <span>PR</span> It requires an unlimited or continuous internet connections to be successful.  Sensor did not work properly all the time.	<b>9. PROBLEM ROOT / CAUSE</b> <span>RC</span> If temperature ,PH level ,humidity & light intensity makes the serious cause for the environment.	<b>7. BEHAVIOR</b> <small>+ ITS INTENSITY</small> <span>BE</span> Located in rural where internet connectivity might not be strong enough to facilitate fast transmission speeds.  The customer will give the proper products in the crop.	
Identify strong TR & EM	<b>3. TRIGGERS TO ACT</b> <span>TR</span> Create opportunities to lift people out of poverty in developing nations.smart farming reduces the ecological footprint	<b>10. YOUR SOLUTION</b> <span>SL</span> <b>"IoT based Smart crop protection system for agriculture"</b> It help farmers grow more food on less land by protection crops from pests, diseases and weeds as well as raising productivity per hectare.  the sensorsand drones sensed information from field and protect the crop.	<b>8. CHANNELS of BEHAVIOR</b> <span>CH</span> <b>ONLINE:</b> The Data send through application and sensor data will send to the farmer.  <b>OFFLINE:</b> The control action is taken by the farmers to monitor the farms.through the immediate reaction.	Extract online & offline CH of BE
	<b>4. EMOTIONS</b> <small>BEFORE / AFTER</small> <span>EM</span> <b>BEFORE:</b> Farmers can't protect the crops until 24 hours <b>AFTER:</b> Farmers can easily protect the crops until 24 hours.			