

## PROJECT DESIGN PHASE-I - SOLUTION FIT TEMPLATE

**PROJECT NAME :** IOT BASED SMART CROP PROTECTION FOR SYSTEM AGRICULTURE

**TEAM ID :** PNT2022TMID22100

Define CS, fit into CC	<b>1.CUSTOMER SEGMENT(S)</b>  faímeís	<b>6. CUSTOMER CONSTRAINTS:</b>  Lack of própeí íffíigation facilities, píoduction machineíy, and access to institutional cíedit, difficulties píocufíng inputs and stóíng píoducts, and negative impacts of climate.	<b>5. AVAILABLE SOLUTIONS:</b>  System that is built foí monitoíng the cíop field with the help of sensoís and automatingthe íffíigation system <b>I</b> he píocesses like pest contíol, feítílizíng, and íffíigation aíe incíeasingly becoming automated, and faímeís can contíol them íemotely. <b>I</b> he use of smaíft lo <b>I</b> sensoís can maintain these píocesses, incíeasing cíop píoduction the announcement of the thíeshold íate will be sent to the cell numbeí oí to the websitewebsitee. The íesult will be geneíated on a catalog of the mobile of the peíson to take the necessaíy action.	Explore AS, differentiate

Focus on J&P, tap into BE, understand R	<b>2. JOBS-TO-BE-DONE / PROBLEMS:</b>  Cíops in the faím aíe many times devastated by the wild as well as domesticanimals and low píoductivity of cíops is one of the íeasons foí this. It is not possible to stay 24 houís in the faím to guaíd the cíops.An intelligent cíop pírotection system helps the faímeís in pírotectíng the cíop fíom the animals and bírds which destíoy the cíop. <b>I</b> his system shall also include íemote monitoíng and contíol of pump to avoid the faímeí to visítthe faím in nighttime.	<b>9. PROBLEM ROOT CAUSE</b>  Cíop ínvasíons by animals aíe a common and seíous píroblem that causes majoí losses.  Buffaloes, pígs, goats, bírds, andfííe have all caused damage to faím cíops in the past.	<b>7. BEHAVIOUR:</b>  laígely questíonnaííe-based methodology that focuses “on the motives, values and attitudes that deteímine the decíision-making píocesses of índívidual faímeís	Focus on J&P, tap into BE, understand R

<p><b>3. TRIGGERS:</b></p> <p>Without food, we could not survive. As the provider of food it is a cornerstone of human existence</p>	<p><b>10. YOUR SOLUTION:</b></p> <p>System that is built for monitoring the crop field with the help of sensors. The IoT device is used to indicate the farmer by a message while someone enters into the Farm and we are used SD card module that helps to store a specified sound to fear the animals. The announcement of the threshold rate will be sent to the cell number or to the website. The result will be generated on a catalog if the mobile of the person to take the necessary action.</p>	<p><b>8. CHANNELS of BEHAVIOUR:</b></p> <p>ONLINE: involve and engage small farmers to work with an online platform to sell their products.</p> <p>OFFLINE: Farmers sell their products directly to consumers through several outlets. Farmer-to-consumer direct marketing is a way by which farmers sell their products directly to consumers</p>
<p><b>4. EMOTIONS: BEFORE / AFTER</b></p> <p>Common farm stresses are finances, daily hassles, and lack of control over the weather, heavy work overloads, and conflict in relationships.</p> <p><b>BEFORE:</b> The agricultural cycle is the annual cycle of activities related to the growth and harvest of a crop (plant). These activities include loosening the soil, seeding, special watering, moving plants when they grow bigger, and harvesting, among others. Without these activities, a crop cannot be grown.</p> <p><b>AFTER:</b> After harvest, farmers might work stalks into the ground, chop them for livestock, let cattle graze them in the field or leave them completely undisturbed, allowing corn residue to cover the field.</p>		