

# EMPATHY MAP

## Smart Farmer - IoT Enabled Smart Farming Application

### Gains:

- **Data, tons of data, collected by smart agriculture sensors**, e.g. weather conditions, soil quality, crop's growth progress or cattle's health. This data can be used to track the state of your business in general as well as staff performance, equipment efficiency, etc.
- **Better control over the internal processes and, as a result, lower production risks**. The ability to foresee the output of your production allows you to plan for better product distribution. If you know exactly how much crops you are going to harvest, you can make sure your product won't lie around unsold.
- **Cost management and waste reduction thanks to the increased control over the production**. Being able to see any anomalies in the crop growth or livestock health, you will be able to mitigate the risks of losing your yield.
- **Increased business efficiency through process automation**. By using smart devices, you can automate multiple processes across your production cycle, e.g. irrigation, fertilizing, or pest control.
- **Enhanced product quality and volumes**. Achieve better control over the production process and maintain higher standards of crop quality and growth capacity through automation.

### Pains:

- IoT – smart farming continually requires internet connectivity. The developing countries 'rural portion did not follow those criteria and the internet is slower.
- The IoT related equipment allows the farmer to understand the use of technology and to learn. It is the biggest challenge for the large-scale implementation of smart agricultural farming across the continues.
- Given any security measures, the system offers little power and can lead to various kinds of network attacks.
- It is very complicated to plan, build, manage and allow the broad technology to IoT framework.

## **Problem statements:**

This is the project from the motivation of the farmers working in the farm lands are solely dependent on the rains and bore wells for irrigation of their land. In recent times, the farmers have been using irrigation technique through the manual control in which the farmers irrigate the land at regular intervals by turning the water-pump ON/OFF when required. Moreover, for the power indication they are glowing a single bulb between any one of phase and neutral, meanwhile when there is any phase deduction occurs in other phases, the farmer cannot know their supply is low. If they Switch ON any of the motor, there will be the sudden defuse in motor circuit. They may have to travel so far for SWITCHING ON/OFF the motor. They may be suffering from hot Sun, rain and night time too.