SMARTFARMER-IOT ENABLED SMART FARMING APPLICATION

PROBLEM STATEMENTS

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Problem Statements

1. India is a Global agricultural powerhouse which is considered as the key for Human Progress. Farmers are usually involved in watering the crops at scheduled times which requires a lot of human intervention, they involve a high degree of guesswork and can be extremely wasteful. To overcome this, we can use precision farming methodologies. They can make the decision whether to water the crop or postpone it by monitoring the sensor parameters and controlling the motor pumps from the mobile application itself. **Automation of watering crops** reduces human intervention.

   2. **Who does the problem affect?** If the yield gets lower, it affects

      • The farmers who have cultivated the crop
      • People who are dependent on the crop for food
      • Indian Economy - Crop production is one of the most important sources of the income

   3. **What are the boundaries of the problem?**
      • The harvest should be good, so that the profit will get improved
      • Want reliable data to water the crops periodically
      • Over or under watering of field may lead to destruction of the crop
      • Drastic climatic changes

   4. **What is the issue?**
      • Wrong decisions would be made by the farmer, if the information displayed in dashboard are incorrect. The data collected from the sensors which present in the field.

   5. **When does the issue occur?** The crop yield will be affected if
      • The sensors does not work properly
      • Any damage in the hardware devices
      • Data sparsity problem

   6. **Where is the issue occurring?**
      • If they is any malware in the application
      • Internet connection is poor
      • Any damages in the pipes, motor may lead to leakage

   7. **Why is it important that we fix the problem?**
      • Reduces the overflow of water
      • Save time
      • Less human intervention