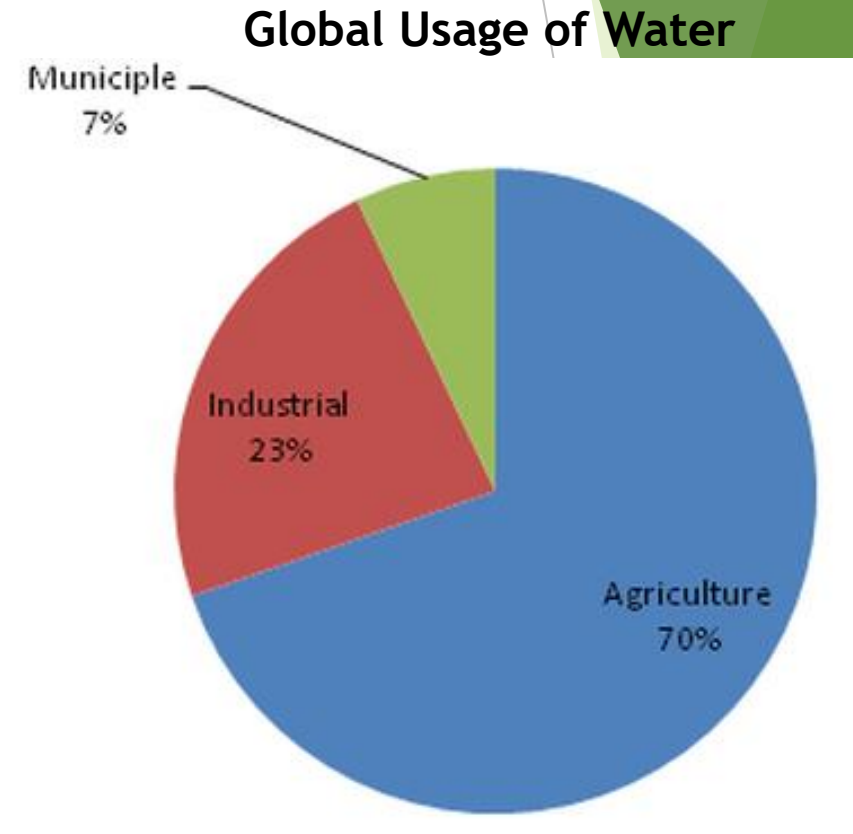# Smart Agricultural System
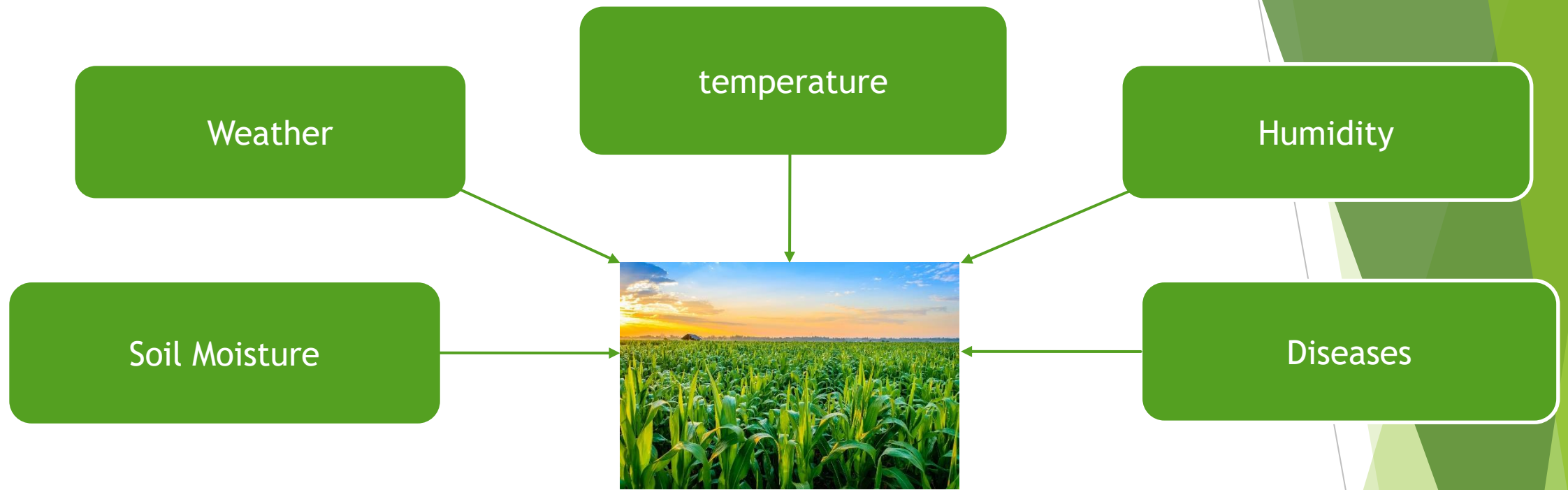
Supervised by :
Dr. Bhagya Nathali Silva

RMNK Rajapaksha

AGIP Ranasinghe

WDKR Ranmadu

BRBSB Baruwatta

Introduction

▶ Agriculture is the main food supplying method of human.

▶ Agriculture accounts for around **70% of all water withdrawals** globally according to the World Bank, and approximately **60% of that is wasted.**

Global Usage of Water

Municiple
7%

Industrial
23%

Agriculture
70%

Weather

temperature

Humidity

Soil Moisture

Diseases

Crop Destruction

Literature Review

The usage of rain sensor **-** irrigation system is for Sprinkler rain measure & shut down water supply motors during rains

Automated Irrigation System using Weather Prediction for Efficient Usage of Water Resources - A.Susmitha, T.Alakananda, M.L.Apoorva, T.K.Ramesh Application of Internet of Things (IoT) to Develop a Smart Watering System for Cairns Parklands - 2020 IEEE Region 10 Symposium (TENSYMP).

Intelligent Diagnose System of Wheat Diseases Based on Android Phone

by Y. Q. Xia, Y. Li, and C. Li , In 2015, Xia and Li have proposed the android design of intelligent wheat diseases diagnose system. In this process, users collect images of wheat diseases using Android phones and send the images across the network to the server for disease diagnosis. At the end of the process, the preferred features are input to the support vector machine for recognition and the identification results are fed back to the client.

Goals

▶ Reduce human interaction by automation system.

▶ Sustainable water usage by controlling water supply according to weather forecasting details and soil analysis.

▶ Early disease detection in crops.

▶ Use IoT and cloud technology to gather long-term data.

▶ Increase productivity.