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Agricultural Portal and Mobile App

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Abstract—India is an agricultural country. Thus, most of the economy of the country is dependent on agriculture. Thus, we can also say that agriculture is the heart of our country. It can be seen that it is necessary to have a well-defined and systematic approach to predict the crops and their outcomes called as yields to support the farmers to take proper decisions. Due to the lack of knowledge of crops, the prediction of best crops becomes complex. Due to the involvement of third parties, the farmers also remain unaware about the actual selling prices of crops, and actual problems with the crop yield. Accordingly, they remain unaware about how to solve these problems by producing an appropriate crop variety. Also, it occurs that the surrounding environment, soil elements, and the climate probably do not match. To overcome this, we give the current state of agricultural systems to judge the improvement in climate change risk. Also, the project is highlighting the exact crop to be cultivated according to the conditions of the soil resulting in an improvement in increasing the crop yield for the profits of the farmers helping them over a long run.

Keywords—Agriculture sector, mobile app

I. INTRODUCTION

In any country economic state mostly depends upon agriculture in which the farm animals pay a very important role,most importantly cows. Agriculture is most important for the growth in economy in India. Almost 60 percentage of land is used for agricultural purposes. Many farmers have started to adapt new technologies for better cultivation of crops however some of the farmers still believe their traditional ways.

As we know that India's economy predominantly depends on agriculture yield every year , it is highly influenced by two main factors that is rainwater and climatic changes, which are highly unpredictable. Therefore, the farmer must employ new methodologies for cultivation of crops in such a way that it helps in improving the agricultural growth and reduces loss of crops significantly. The proposed method provides a solution in the form of portal and mobile app which will assist the farmers in increasing crop productivity using technologically improved techniques.

Inputs will be considered such as soil moisture, changes in the climatic conditions which include temperature and rainfall, pro t and loss of the crops and soil type. Also there is a need to predict whether the area of cultivation, is suitable or not, for a particular season. If the area of cultivation is not suitable, it may lead to decrease in agricultural productivity. Due to no prior knowledge of market situation (like the pro t and loss of crops in market, cultivation of crop at a season, market price), farmers have to give the commission to agents who purchased the crops from farmers at a much lower cost.

We do have government portals for providing knowledge to the farmers something that was not available to the farmers back in the day. The system that we will be developing will here will provide information regarding pro table crops in a particular season and the suitable environment in which these can be grown respectively. The system designed will be such that the farmers can access the portal directly, and get the knowledge of the conditions. It will also show the details whether to cultivate a particular crop on the basis of current environment situation.

This project will allow users to log in and check the current environment condition whether it is suitable to cultivate the crop or not considering the region. Here, the new users can also sign up into the page by filling up the registration form which indicates their personal details, state, region and so on. By submitting the details, they will be registered for the updates of the portal and all the details will be stored in the database. The users can easily access the portal as it is easy to understand and convenient to use. The mobile application will further help in providing remote access to the information that is available on the website portal.

Every crop requires different set of conditions in which they can be grown primarily the season and rest focuses on the conditions of the soil it is grown in and various other environmental conditions. One database will be constructed which will consist of data about the crops, soil factors like

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