FARMER'S FRIEND

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Abstract – *From the view of reducing agricultural product logistics time in order to lower agricultural product logistics cost, the paper systematically analyzes the contradictory problem caused by reducing agricultural product logistics time. Utilizing extenics theory, the paper researches the incompatible problem between agricultural product logistics time and existing logistics conditions and structures extension model of the incompatible problem. And from the view of internal resource and external environment of agricultural product logistics system, extension analysis to the incompatible problem is done. The analysis leads to a particular solution, and provides scientific reference to the reducing of agricultural product logistics time.*

Key Words: Agricultural product, systematically analyzes, extenics theory, extension model, incompatible problem, extension analysis.

1. INTRODUCTION

Agriculture is the primary source of livelihood for about 58 per cent of India's population. Gross value added by Agriculture is estimated at Rs.17.67 trillion. The production of crops place an important role to fulfil the consumer's need. Based on consumers need and demand crops are produced.

The production of crops depends on factors like temperature, humidity, climatic conditions and season. It varies from place to place. In India Sometimes production of crops get affected due to lack of rain, nutrients and natural calamities like cyclones, thunderstorms. It results in the lack of crops which results in increased crop price in market. Farmers in the particular region sow the same crops all over the region which increases the same crop production. Consequently it will affect the market price of the particular crop. Crops which is highly produced will be sold at low cost and the low yield crops will be sold at high cost.

Our android application will help the farmers by letting know what all are the crops sowed in the nearby region. When the farmer is going to sow the dame crop which is already getting highly produced in that region. Our application will notify farmer with the toast message. By getting the crop name and region details the application will collect the crop information and suggest the farmer which is not sowed at that region with the alternate crops that is suitable for the soil type, climatic conditions and humidity.

Apart from suggesting alternative suitable crops our application provides feature to see what all the crops sowed around their region which helps farmer to sow various crops. High yield and high productivity features are there in this application that will suggest the profitable and yielding crops. Advantage of our application over the already existing agricultural application is that. Stable production of unique crops, price falling and rising is maintained over the market. Same crop production is reduced. There will be equal production crop varieties over the region.

1.1 Scope

The scope of this android application project is to balance the varieties of crop production in agriculture. By knowing the information of the crops growing in the particular region. A farmer can produce alternate crop varieties which is not growing at the time. Our project has a good scope over the agricultural field.

1.2 Objective

In logistics system logistics conditions influence agricultural product logistics time can be divided into internal resource conditions and external environment conditions. To agricultural product logistics system, internal resource conditions influence the logistics time including work efficiency of logistics staff, service ability of instruments, existing optimization degree of logistics process; external environment conditions include weather condition, road condition and traffic condition.

2. LITERATURE SURVEY

2.1 Research on Incompatible Problem between Agricultural Product Logistics Time and Existing Logistics Conditions

From the view of reducing agricultural product logistics time in order to lower agricultural product logistics cost, the paper systematically analyzes the contradictory problem caused by reducing agricultural product logistics time. Utilizing extenics theory, the paper researches the incompatible problem between agricultural product logistics time and existing logistics conditions and structures extension model of the incompatible problem. And from the view of internal resource and external environment of agricultural product logistics system, extension analysis to the incompatible problem is done. The analysis leads to a

particular solution, and provides scientific reference to the reducing of agricultural product logistics time.

2.2 Innovation and Practive on Training Mode of Postgraduates in Subject of Agricultural Engineering Oriented Region Economic Development

Based on demand of High-Level talents for agricultural mechanization development and agricultural equipment industry in Shandong province, we put forward the best alternative scheme for students and teachers, the tutorial and vice tutorial system of postgraduate, main core curriculum modulation to teaching students in accordance of their aptitude. The professional background, employment experience, ability characteristics and personal interest were comprehensive considered in training plan. By using innovation on training mode of postgraduates, we realized the purpose of which to cultivate postgraduates that satisfy the needs of region economic development and stability of training quality.

2.3 Farmer's Analytical Assistant

KAnOE - Centre for Knowledge Analytics and Ontological Engineering, Abstract--About half of the population of India depends on agriculture for its livelihood, but its contribution towards the GDP of India is only 14 per cent. One possible reason for this is the lack of adequate crop planning by farmers. There is no system in place to advice farmers what crops to grow. In this paper we present an attempt to predict crop yield and price that a farmer can obtain from his land, by analyzing patterns in past data. We make use of a sliding window non-linear regression technique to predict based on different factors affecting agricultural production such as rainfall, temperature, market prices, area of land and past yield of a crop. The analysis is done for several districts of the state of Karnataka, India. Our system intends to suggest the best crop choices for a farmer in order to address the prevailing socio-economic crisis facing many farmers today.

2.4 Agro App: An Application for Healthy Living

Mobile applications and services make things simpler fulfilling our daily needs for information, communication, entertainment or leisure. Mobile Applications have brought a new revolution. In this paper we provide one such mobile application "Agro-App" under development by us, which can lead to a healthy life. Agro-App is a mobile application built keeping the farmers in mind and also a common man who wants to grow vegetables for his daily need. It keeps a farmer updated with all the information related to crop, pesticides, insecticides, financial sector etc. It provides detailed information about which crop to grow in which season and which crop is suitable for that particular area in which the farmer is living. Government of India is spending millions of money to make ICT helpful for agriculture purpose but the hindrance is the literacy of farmers mobile

being a common device now , with this application we aim to make it friendly for farmers.

3. SYSTEM ANALYSIS

3.1 Existing System

In existing system, they proposed "Reduce agricultural products logistics time". They have also proposed to cultivate post graduates that satisfy the needs of region economic development. In the Existing system, they suggest the best crops choices for a farmer in order to address the prevailing socio-economic crisis

3.2 Disadvantages

Cost of crops varies from one region to other region. The demand of crops in particular region is still exist.

3.3 Proposed System

Agriculture is the heart of the social development of our country. Agriculture is much vital because it provides lively hood for majority of the population, most contributing to national income, gainful employment. The first challenge was to collect sufficient data to enable accurate analytics. Different datasets are required including of each crop in different districts. There are different sources through which the datasets were obtained. Another issue comes from the different dimensions and units across datasets. For example, rainfall and temperature data are available for climatic regions (e.g., South Interior Karnataka) or for grid points at one-degree latitude and longitude increments on a daily or monthly basis.

4. SYSTEM DESIGN AND MODULE DESCRIPTION

4.1 System Architecture

The overall architecture describes about, First the user will register their details with their total number of acres in our application . Those details will be stored on data base.
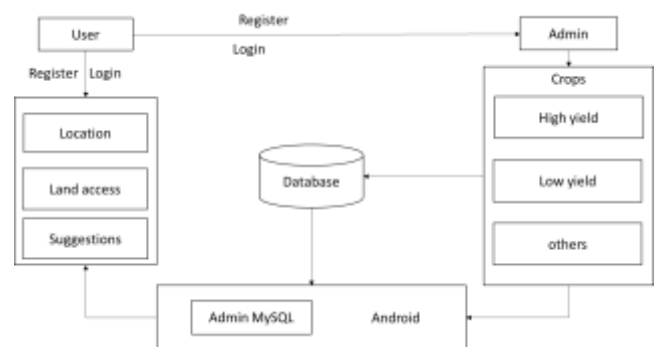

Fig -1: Architecture Diagram

After their login, user can choose his soil type and the crop what he wants to plant that the like to grow. Now the our application check whether this particular plant already reach the limitation , if they didn't reach the limitation then it allow the farmer to proceed otherwise it show warning and suggest some other crop to the farmers will grow in that soil and bring profit to the farmers. And we can also view the crop details of other farmers.

4.2 Work Flow

For our proposed system will do the following:

i) **Getting the land and crop details:** Getting the land and crop details from the farmers account.
ii) **Analysis the crop details:** Analysis the crop details from the farmers account to give suggestion to other farmers.
iii) **Checking the limitations:** Checking the limitations whether the entered crop is exceeded the limitations or within the limitations readings.
iv) **Alternate crop suggestion**: If the limitations exceeded then the alternate crop details will be shown based on their soil type.

5. CONCLUSION AND FUTURE ENHANCEMENT

5.1 Conclusion

The application would definitely help in bridging the gap between the farmers and technology and would prove beneficial to all sectors interested in farming. The proposed tool also helps the farmer in estimating crop requirements such as water (both irrigation and rainfall), soil, humidity, pH value of soil etc. It also makes sure that the crops suggested follow crop rotation patterns so as to make sure that the land remains fertile for long. Also, we have made sure that the farmers are suggested different crops to make sure that all the farmers are not growing the same crop leading to drop in its price.

5.2. Future Enhancement

In future we would try to add the facility that by subscribing the application once farmer can get updates just by SMS even he does not have smart phone to run the application. This tool intends to help farmers to make educated choices about the crop which he plans to grow next. We have implemented features like production prediction and price prediction which will help the farmer make a reasonable estimate of the price and yield he may get.

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