

## Role of Computer Application and Information Technology in Enhance the Farmers Income

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### ABSTRACT

Computer is integral part of everything in-these-days and agriculture is no behind of using it. Various applications right from initiation of agricultural planning to the ultimate consumption of it is incomplete without computer in present world. Government, research institutes and other organizations are emphasizing more on e-agriculture. As we know Indian economy depends on agriculture so there is a need to strengthen the sector by using latest information technology tools and computer applications. Today's' the farmers well know about the computers and its application so it is very easy to implement computer technology in the farmers field by using latest technology we can help to double a income of the farmer which is the latest mandate of government. Computer and its application can predict the things well before the execution of plan and can help in minimizing the losses which will ultimately add to the economy of farmers and country.

**Key words:** Anna Data, GIS, Soil analysis, Income

### INTRODUCTION

Doubling the farmer's income is very crucial task for the Indian government. Farmers are called the "Anna Data" and the financial conditions of these farmers are not too good and government is very concern about it. Use of computer application and Information technology tools helps farmers to increase the income and also play a very important role in Indian economy. There are very useful information technology tools and computers software for helping the farmers in agriculture fields and give a idea for progressive agriculture.

### COMPUTER APPLICATION AND IT TOOLS

Technology can enable a farmer to know the health of the soil and help him choose from a variety of crops that can be grown on the land. This help for the farmers to know the health of the soil and also give the ideas about the fertilizers which is used by the farmers. This is already being done through the Soil Health Cards. India must go beyond this by effectively transferring information and knowledge to the farmers.

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Soil analysis is done by computer based machines and software that make easy to find out the component of soils and helps the farmers to make the soil very fertile and it can help the doubling income of farmers. To start with, India ought to get a noteworthy move in its agribusiness moving it from a low-efficiency stage to a high gainful level and in the meantime guarantee that it is reasonable and evenhanded. The efficiency of the greater part of the products in the nation is beneath world normal for the most part due to poor access to water system and enhanced innovation.

### **WEATHER FORECASTING**

Forecasting the seasonal conditions in advance, this is done by GIS remote sensing technique is widely used by the scientist for weather forecasting and release the information to the country area wise and suggest the famers about the weather condition so that farmers plowing the field and sowing accordingly. Heavy rain condition draught condition easily identify by using these tools. Testing the soil and water availability scientists must work with the government's extension machinery like Krishi Vignan Kendras to advise the farmers on the cropping patterns and post-harvest processes and food processing technologies. Using these tools and application helps farmers to increase the income in future<sup>1</sup>.

### **USE OF GIS AND REMOTESENSING**

Geographic Information Systems (GIS) and remote sensing are being used for developing Classification systems that evaluate land and provide a site assessment to aid what is now known as accurate agriculture. These hi-tech, interactive systems provide information based on a variety of factors such as soil conditions, drainage and slope conditions, soil pH and nutrient status, etc. In the past when these technique were not used farmers were unaware about soil output, and unpredictable weather conditions affecting crop quality and profitability. Now a days GIS and remote sensing technique frequently used and farmers are well known about the, fields, soil conditions etc. Accurate agriculture provides farmers with control by predicting vital information including fertilizer application and

problems with drainage, insects, and weeds. Most government websites provide this kind of information free of cost, covering agricultural land. Global Positioning System (GPS) based technologies also help to monitor irrigation, field mapping, soil sampling, tractor guidance and crop scouting. This kind of technology equips farmers with enough information to increase crop yield in a manner that is consistent with the best environment practices for sustainable agriculture<sup>1</sup>.

### **MOBILES APPLICATION**

Mobiles are very useful in our daily life and every one now using the mobiles. There may be smart phones and features phones both helps for developing in new India. Every pocket has mobiles and everyone uses mobiles application. There are different types of apps which is directly related to agriculture sector and help farmers to sowing the seed to selling the crop in the market. Market rate, increasing or decreasing the rates of crops type of markets and nearby markets, crop insurance, useful fertilizers etc are easily found out using the different mobile apps. This information also works for increasing the income of farmers<sup>2</sup>.

#### **KisanSuvidha**

KisanSuvidha mobile app has been developed to help farmers by providing relevant information on weather of current and next 5 days, dealers, market prices, agro advisories, plant protection, IPM Practices etc.

#### **PusaKrishi**

PusaKrishi app help farmers know the various types of crops and information about those.

#### **MKisan Application**

The android app allows farmers and all other stakeholders to obtain advisories and information being sent by experts and government officials at different levels through mkisan portal without registering on the portal.

#### **Farm-o-pedia App**

The app is targeted for rural Gujarat and is useful for farmers and anyone involved in agriculture business. The app can be used to get suitable crops as per soil and season, crop wise information, check whether in your area and manage your cattle.

#### **Crop Insurance Android App**

Crop insurance mobile app can be downloaded and used to calculate the Insurance Premium for notified crops based on area, coverage amount and loan amount in case of loanee farmer. The app can also be used to get details of normal sum insured, extended sum insured, premium details and subsidy information of any notified crop in any notified area.

#### **AgriMarket**

AgriMarket mobile app can be used to get the market price of crops in the markets within 50 km of the device's location capture by GPS. There is another option to get price of any market and any crop in case person does not want to use GPS location.

#### **Agro India**

The Agro India is an agriculture news application which gives you latest news regards agriculture. The main features of this app ie.

You will get the Agriculture news. Fresh news reach at you today itself.

You will get all latest news from agriculture field with notification alert.

#### **AgriApp**

AgriApp is a revolutionary Android based mobile application. It provides complete information on Crop Production, Crop Protection and all relevant agriculture allied services on your Smartphone. In addition to being an information portal, AgriApp is also an online market place bringing farmers, agri inputs, and retail & fulfillment services on a common digital platform.

#### **IFFCO Kisaan**

The Most Popular & NO.-1 app for the Farming Community, The IFFCO Kisaan App is exclusively dedicated to farmers. "IFFCOKisan" is an Indian agriculture

farmer suvidha App, which helps the Indian farmer/ Kisaan to take informed decisions by accessing customized agricultural information related to their need. Our agriculture suvidha app is for Kisansuvidha and provides the latest mandi prices, weather forecast.

#### **INFORMATION TECHNOLOGY USES INFORMATION EXCHANGE**

Farmer can get information regarding price, weather, temperature etc. Keeping financial record, Production record, online banking, Buy required resources through internet etc... The amount of water sprinkled in a balanced quantity is also computerized. Through forum and social networking site farmers can get connect with other experts and exchange their views and other details. Farmers can get a lot of information on variety of agriculture topics by surfing. Farmers can get connect foreign customer which can help to improve their product and increase their production capacity. The production capacity in farming and animal husbandry has increase due to use of computer in agriculture field. There are less losses due to work are monitored by computer. By using computer in traditional field like agricultural field we can increase the productivity and minimize the error happen.

#### **FARM MACHINERY**

In farm system there is widely used computer technology today. Many of the machine which is used in the field programming by the computer technology. Special purpose tractors, seed drill, laser leveler, harvester and bund maker are mainly used by the farmers on the field. Many central and state agricultural universities also used these machine for teaching the student and modern agricultural systems



**CONCLUSION**

The conclusion reached in the last is that the information technology make easy to work in agriculture sector and it helps to enhance the productivity of crops and benefitted to farmers in farmers fields. Using mobiles apps, computer based farm equipments ,GIS remote sensing technology and different kinds of computer based machines are very helpful to achieve the target for doubling the farmer's income

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