DEMAND BASED AGRICULTURE SUPPLIES THROUGH ICT APPLICATIONS FOR SMARTER INDIA

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Abstract:

India is still surviving because of agriculture, which is the backbone of India. However in the recent years, Agriculture in India is losing its governance gradually when compared with development of world Agriculture. The downside of the agriculture in India includes development in industrial sector, unaware of modern technology by the farmers, unaware of importance of food, agriculture and food waste by the youngsters. Farming community is facing lot of problems in maximizing the crop productivity. One of the reasons is that expert scientific advice on crop production and marketing is not reaching the farming community in a timely manner. The demand of Indian farmers across the country is varied. Introduction of Information and Communication Technology (ICT) facilitate the distribution of essential information at the right time.

Keywords: ICT, networking, Agriculture .

Introduction:

India is still growing even after facing lot of natural disasters, border issues and political dilemmas. India is collection of villages with dedicated farmers and strong agricultural back ground. Each and every zone in India is noted for different climate conditions, ecological structure, and geological variances. Apart from previous properties, the races, cultural back ground, life style, food cycle of the people is giving to India, a unique color in the world.

Farmers grow the crops for centuries, but uncertain weather conditions, low level of nutrients in soil conditions and epidemics of pests and diseases will affect the crop production. All these distinct factors raise the need of agricultural emergency which are demanded by the formers. Food security is the primary demand which is dependent on seed security.

Based on the demand by the farmers, the required seeds and its type will be stored in rural agricultural hubs, those requirements will be opposed to district head quarters, then state – central head quarters. Based on the groups, shortest or feasible path can be fixed, and then based on the season it can be changed from state to state. After verification of the documents and resources available, the farmers can get seeds which they required.

This is starting and when they started to seed and grow the crops, the demands from cities and semi urban are counted. Based on demand, government can support with their transport and customers can access directly. Slowly middle man will be reduced and farmers can fix the rate and they can apprehend the real profit. Through data and big data joined in it. India can use all its agricultural resources in all the criteria.

Slowly, trees, seeds, resources can be saved not only by direct changes. We can ensure the food cycle will go in proper way through the seasons. Every state will have its own climate conditions and soil level and fertile level. So through this kind of research and extensions, data from all rural hubs can be centralized or the cloud can be controlled by Government and overall growth can be accessed in India. ICT is an integration of the technologies and the processes to distribute and communicate the desired information to the target audience and making the target audience more participative in nature.
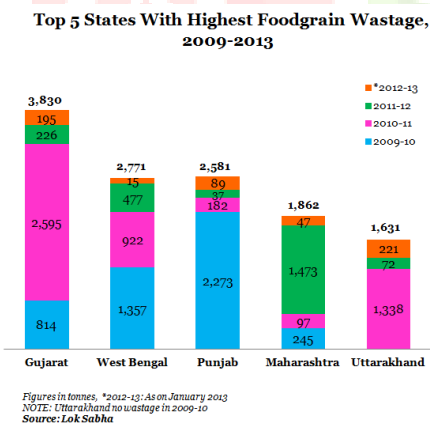
Role of social networking:

Fig1. Top five states in food wastage rate in tones [1].

Usage of Cloud computing in Agriculture:

Cloud computing in agriculture sector plays a vital role to provide intensive farming. The implementation of latest technologies makes the management and monitoring of agricultural very simple and easy.

With a applications of cloud computing, farmers are benefitted in the context of higher production, marketing selling and decision making processes. Various government schemes for agriculture can be presented to the farming community through cloud computing. The primary reason to adopting cloud computing is to help the farmers in taking decision related to crops and land.

Cloud computing provides high capacity data stores to store the large scale data and information. The databases pertaining to the farming community such as crop information, weather information, market information, farmers experiences of the agricultural processes, information about the pesticides and prescriptions etc. can be easily stored on cloud.

Cloud computing provides low cost access to vast IT resources. Information communication technology is the modern cloud infrastructure to allocate the resources and services on demand means whenever and whatever a farmer required [2]. Farm management system provides the disease alert system and reaction of the disease on the crops. It also give the knowledge about the new software related machinery and techniques applied in agriculture.

Farm management and Disease alert:

The diseases in leaves, vegetables, fruits or insects in crops can be imaged by the farmer himself and they can send it for free to rural hubs. Existing diseases and patterns will be there. By which they can suggest the remedy. Even in future they can give the precautions of the diseases too.

Images, network and data are the greatest need to set a rural hub stations. A simple diploma candidate can support farmers in their regular routine. Agricultural officers can go through

different research and the results must be stored in order to attain the improvement in agriculture in all scenarios.

The prevention can be informed in emergency times to nearby fields and farmers. So through information and communication technology, this field can improve like anything in the world. Government can join together with service providers and it can help rural people to ensure their work and nature is being saved. There are useful applications like swatch bharat app, its having GPS and image supporting app in it [4]. If this app can do this, the same app can be modified to send and receive messages from rural hugs and urban head quarters.

Through geo satellite images, they can know the properties of their own land. By the previous researches he can obtain maximum harvest for his crops. Farmers are the professionals who are serving the society without receiving their honors in any pattern. Slowly the race is now supported by any means. Government is not showing the interest to support of sharing the resources like river water and waste land within states even.

There must be few rules which should be followed strictly within India, that natural resources can be shared for the welfare of the people. Good places must be found and proper saving parameters should be taken. Saving nature is the ultimate aim, instead of investing crores in standalone projects.

Demand and Lack of Communication:

Peer groups, rural hubs, regional hubs and central hubs. Distribution of water and resources are not having enough charts in India. Many rivers are changed as into quarries to take sand from their sheds and exported to nearby places and even exported to abroad. Worst thing that, we cant get them back in any form. Natural resources can be taken again from anywhere. Once taken in taken, it won't come back, without proper scientific

knowledge, we are losing our resources. This must be come under control.
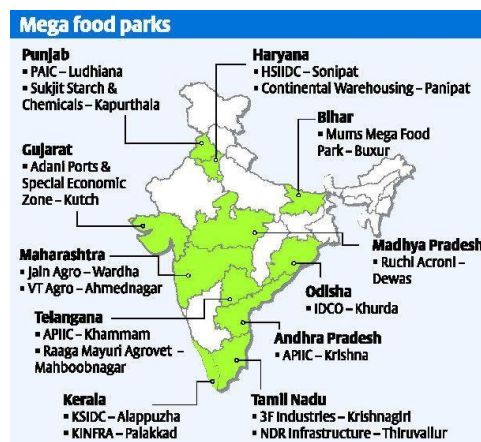

Fig.2 Excess food and Demands in India. [5]

Government should make strong rules to control their habitat and growth also. Growth is an illusion that is measured now a day on land and population. Real growth consists of the ratio of nature and people accessing it.

There are some good signs like educated students are coming back to agricultural profession. They are organizing the things properly, analyzing the demand and learning natural process from experienced personals they are doing agricultural in successful ratio among the old pattern. This can motivate government and slowly like china, India can give employment based on agriculture. Real growth if a nation implies on health aspects and citizens good mentality. Agriculture can give those things with non corrupted leaders.

Even after these levels of scientific achievements Indians are depending on other fertilizers. Almost South India and North east India is completely moving towards natural agricultural system. We plead our fellow Indians to follow Natural farming method, it may look like non-profitable, but when time lasts it will give good results. Data must be stored for crops, time span and time to travel within India. Clean chart must

prepare for transporting the vegetables. By that quality can be confirmed within regions.

Government must encourage people to participate in farming; it should avoid converting agricultural lands converting into concrete forests. Reservoirs should be build by using contours information by GPS.

By connected graph method, we can find all the possible routes to connect the rural hubs. Not only agricultural material, the associated materials can be purchased through the government channel, in which government can earn a decent amount, these purchases can comes under tax reductions. Because farmers are directly serving for the nation after Jawans. Goods, products they purchase and sell in rural hubs can come under tax reduction. Semi urban policies can have their own level of perception based on the purchaser tax information and incomes.

At the same time, the growing demand for food and shifting food security needs are driving innovation in the resource space. World is now more inter-connected, spawning massive data and exploration of these data can help to drive decision making that can transform the farm source-to-consumer value chain [3].

Students in India must have agricultural hour weekly twice, in which they can breathe well and they can know how the crops have been grown and how to maintain it and at last, they knew the value of each and every eatables. They won't waste the food in future. Organized agriculture by the student power is an excellent employment opportunity for current and future circumstances; it will stand as a King of all employment. As nicely noted by the well known Tamil poet and philosopher, Thiruvalluvar, uzhudhuNdu vaazhvaarae vaazhvaarmaR Rellaam, thozhudhuNdu pinsel pavar. The meaning of this couplet is that who ploughing eat their food, they truly live: The rest to others bend subservient, eating what they give.

Conclusion:

Indian agriculture is gradually going downside in the development due to various factors. ICT plays a vital role to help the farmers regarding their demands to take decisions in farm management. The optimum utilization of ICT will help in the growth of agriculture and overall well being of the farming community.

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