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IMPACT OF ICT IN AGRICULTURE WITH SPECIAL REFERENCE TO FARMERS IN BADLAPUR

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Abstract:

Agriculture is known to be the one of the far most important sector of India. The term agriculture is broader than it is commonly anticipated to be. This includes production of plants, crops, livestock etc. All of us are directly or indirectly depend upon the agriculture sector. This industry provides us our food required to be alive.

By knowing all these facts this paper explores the areas where ICT can help farmers to improve productivity, discusses about helping them to get knowledge about online markets available to sell their products, also suggests ideas for spreading awareness about technology in agriculture.

Keywords: ICT, agriculture, increase, farmers, measures.

Introduction:

Farming is one of the oldest economic activity of our country, where methods are significantly evolved depending upon the whether condition, climatic changes. India's agriculture composes many crops, staples, seeds, pulses non-food items such as tea, coffee, rubber, jute, cotton, etc. Unfortunately yield per hectare are very low as compared to international standards.

Despite the agriculture accounts much for Indian economy still the problem of starvation is not solved. Migration of Adivasi from their home land leads to many problem. They don't have any land to cultivate hence they can't give their best. As a whole we lack the quality for cultivating good resistance crops. Even lack of literacy, lack of technical knowledge, lack of ICT knowledge makes them to stand back in the line of cultivation. Farmers of Badlapur are also facing these problems and can overcome by using ICT.

The three rural settlements Temghar, Talimghar and Badlapur together make the existing Badlapur. There are about thirty two communities living in Badlapur. Total area of Badlapur is 35.68 km^2. The rice is main agricultural product of Badlapur farmers. After this vegetables like bottle gourd, bitter gourd, pumpkin, cucumber, tomato, spinach, fenugreek etc. Earlier there were numbers of rice variety grown. But now they are taking production of Rupali and Kolamba type of rice only.

Research methodology:

The primary data was collected through the well-structured questionnaire by doing survey from various people situated in villages of Badlapur, Thane district. The respondents were asked to fill or answer their views about ICT. The options were given to select the correct answers.

The secondary data was collected from various internet sites and journals.

Review of Literature:

1) **Impact of ICT and mobile technology in agriculture in Maharashtra – by Jayade K.G. & Khot P.G.**

This paper helped to explore the problems face by farmers in Maharashtra and how ICT and mobile app can help farmers to get solution. Also this paper highlights the initiatives taken for rural development.

2) **A study of the use of ICT among rural farmers – by K. Lokeswari**

This paper discusses about the challenges of the traditional agriculture. It also examines the attitude of farmers towards ICT.

Limitations of Study:

The data was collected from farmers cultivating rice and other vegetables in Badlapur only. This study was conducted to understand the role of ICT in agriculture.

Objectives:

1) To understand the meaning and role of smart technologies
2) To study the role of ICT in increasing productivity
3) To suggest measures to aware use of technology in agriculture-

Role of smart technologies

ICT means Information and Communication Technologies which are trending and important concepts of today's life. These technologies are used to connect people with the world by using different gadgets like computers, laptop, mobile, ipad etc. With the help of ICT we can bring changes in all aspects of our lives including social interaction, economic growth, education, health entertainment and so on.

For development of rural area in India so many applications are available. When we talk about rural area mostly we counts villages which are mainly depending on agriculture and related products to survive.

To bring changes in life of farmers we need to work for his economic growth which is directly depend upon agriculture. ICT can make a significant contribution for increasing the efficiency, productivity of small scale farms and bringing market to their door step.
With the help of ICT we can generate and analyse the large data or information that can help to understand the problems of farmers and providing them solution.

Role of ICT in increasing productivity-

If we observe the life of any agricultural product then one has to consider so many phases like crop cultivation, watering, applying fertilizers, saving crops from pests, harvesting, post harvesting care, sending the product to market etc.
The farmers of Badlapur are facing few issues like small and fragmented land holdings, good quality of seeds are out of reach; markets are not near, uncertain weather conditions etc. To deal with all these types of problems farmers need updated information to empower themselves. Information communication technology can provide vital access to information. The internet and mobile networks have potential to connect farmers with the information they needed.
Information communication technology can provide answers to various agriculture queries of farmers like how to select the seeds? , how to prevent crops from pests attack? , weather conditions, from where to get seeds?
Few farmers have registered themselves in some government schemes to which they getting suggestions through short message service that is SMS. And for farmers convenience all these SMSs are in Marathi language. Some of them are also getting pre-recorded calls in Marathi language which helps them to understand the fertilizers and pesticides available in the market. The apps like weather forecast can help farmers to understand the today's weather condition to make decision like cultivating crops or harvesting. With all these ICT can help farmers by creating communities on social media and connecting them with various agro institutes, NGO's to discuss problems or to share their views.
One of the major obstacles for farmers is complex distribution channels for marketing their products. Farmers are unaware of the updated price or proper places of selling goods. Information communication technology has the potential to help farmers by giving access to

widen marketing horizon where farmers can sell their products directly to consumers and can get appropriate value of it.

There are several apps available that are developed to help the farmer. Some of the e-agriculture initiatives are:

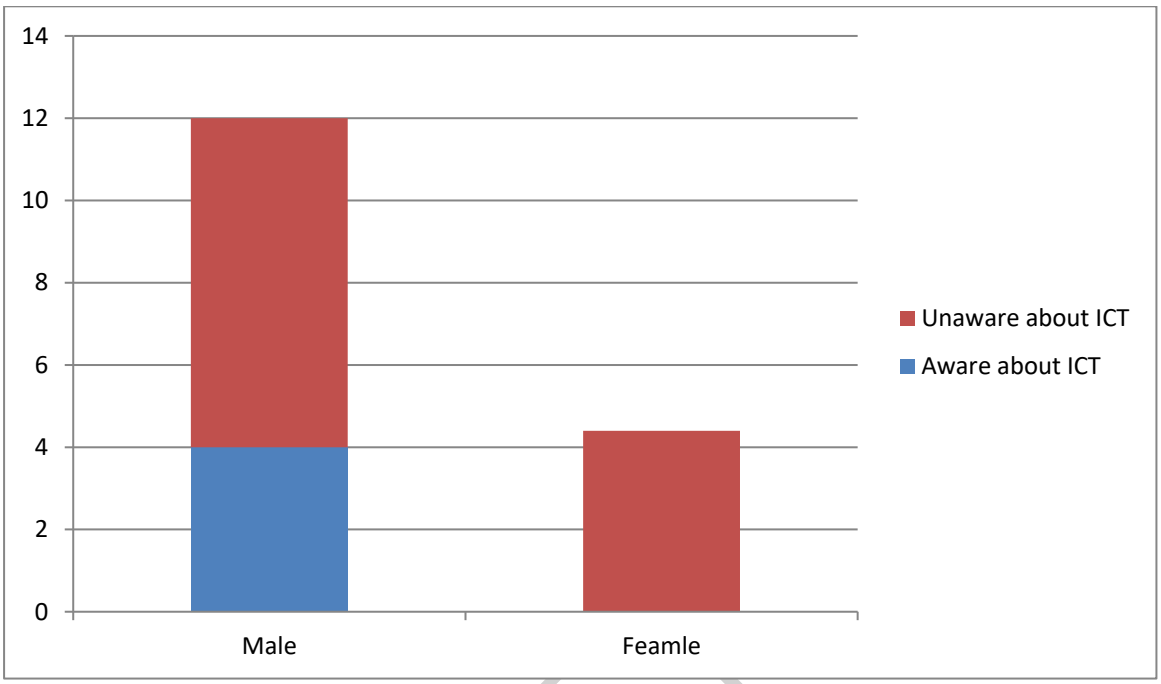
1) *AgriApp*:- It is an online farming market place bringing government service on an online platform. This app provides video on agricultural work.
2) *Agrisnet*:- It is a web portal that broadcast information to farmers. This portal was initiated and funded by the Ministry of Agriculture, Govt. of India.
3) *IFFCO Kisan App*:- This app provides agriculture advice and farming tips. It also provides weather forecast information. It delivers required information and custom made solutions to the farmers through voice messages. Also this app can provide alerts in ten different Indian languages.
4) *Kisan Suvidha*:- This was launched by PM Narendra Modi in 2016 to empower farmers with adequate information on current weather with forecast of next five days, market prices, nearest market to sell products etc.
5) *Crop insurance*:- The app helps farmers to calculate insurance premium for crops and also provides cut off dates, company contract, it's location etc.

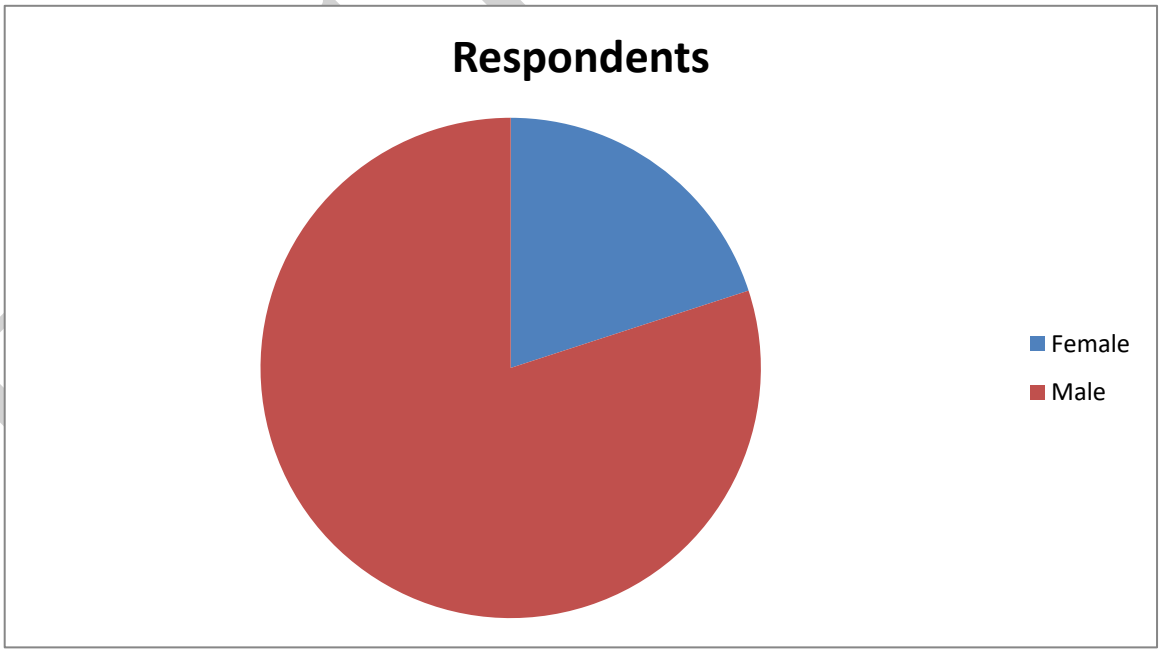
All these and many more apps as well as web portals are available to help farmers.

Findings:

Personal in-depth interview had been conducted in villages of Badlapur , Thane district.

- Overall 50 people were interviewed from which 20% were female and 80% male.
- The percentage of literacy was very low that is only 4% of them were literate, aware about the ICT and rest all were illiterate.
- Though they are illiterate, still ready to acquire knowledge of today's developments in ICT to improve productivity of field.


14
12
10
8
6
4
2
0
Male
Feamle
Unaware about ICT
Aware about ICT


Respondents
Female
Male

Measures to create awareness about use of technology in agriculture:

There are many apps and web portals available to provide all types of help to farmers. But due to lack of awareness farmers are not getting benefits of these facilities. To solve this problem few steps can be taken to spread awareness among farmers to utilize the available resources and information to increase the productivity also to sell the products easily.

1) Arranging free of cost exhibition for farmers to spread literacy about digital media.
2) Printing and distributing hand books and posters.
3) Every college has N.S.S. or N.C.C. unit under which they can arrange some street play or session on how to download and use apps.
4) Arranging sessions on ICT training and skills to enhance their productivity in future.

Conclusion:

Agriculture is one of the most important sectors in our country. So to increase the productivity of crops, getting appropriate value for goods farmers need to take help of ICT. Government is also providing different apps and web portals which are developed to help farmers. But due to illiteracy farmers are unable to get benefits. So to reduce this problem most of the farmers needs training to use these service and skills to enhance their product in future. Now for every farmer it is need of an hour to obtain adequate information through ICT by getting trained.

References:

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4) A study of the use of ICT among rural farmers – by K.Lokeswari

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