# ROLE OF ICT'S BEFORE AND AFTER AGRICULTURAL DEVELOPMENT PROGRAMMES

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***ABSTRACT***

*Precise knowledge can mitigate challenges of enhancing production in a situation of declining natural resources necessary for production. It can also boost innovation and promote rural development. The growing demand for agricultural products, however, also offers opportunities for producers to sustain and improve their livelihoods. Information and Communication Technologies (ICT) act as a key agent in imparting precise and timely knowledge. In order to disseminate practical information, ICT in agriculture sector is increasingly important. This paper highlights recent advances in ICT and its role in assisting Agricultural Development Programmes (ADPs).*

**Keywords :** *ICT, agriculture development programmes (ADPs)*

## INTRODUCTION

Agriculture is a gigantic sector of the Indian economy as its share to gross domestic product (GDP) is almost 17 per cent. The increased demand for food grains can be met only with sincere efforts in agricultural research and extension [1]. Information technology and agriculture, both were considered incongruous to each other a decade ago, but now the scenario has changed. Information Technology (IT) has a substantial role to play in all facets of Indian agriculture. In addition to facilitating and improving the efficiency of farmer's productivity in agriculture and allied activities; bringing the potential of IT for the qualitative improvement of life of farmers by providing timely and data inputs for decision making is inevitable [2]. Using IT an average Indian farmer can access information pertaining package of practices, agro-inputs, agro processing & finance details, crop production technologies and management of farm agri-business. The agricultural extension system is becoming dependent on IT to provide appropriate and location specific technologies for the farmers to avail timely and expert advice to the farmers.

The National Extension Service was inaugurated on 2nd October 1953 and since then onwards with its subsidiary schemes/branches it is building nation and empowering farming community [3]. Agricultural development programmes (ADPs) are conducted with a specific vision and mission. The critical mandate/objective of the ADPs is to boost agricultural production as well as contribute to rural livelihood and food security [4]. Other objectives of ADPs can be to incentivize the state that increase their investment in Agriculture and allied sectors, to provide flexibility and autonomy to the states in planning and execution programmes for Agriculture, to ensure the preparation of agriculture plans for the districts and states, to achieve the goal of reducing the yield gaps in the important crops, to maximize returns to the farmers, to address the agriculture and allied sectors in an integrated manners etc. ADPs are carried out at National, State, District, Block, Village & jurisdiction of Agricultural University level.

Agricultural development programmes mainly focus on food security and empowerment of communities economically it also depends on following factors [5]

(1) Sustainability

(2) Particular to the geospatial and economy.

(3) Use of locally available materials

For each ADPs organizing entity needs to collect prior information, maintain certain information regarding ADPs and disseminate its outcomes and lacking. Thus, from inception stage one deals with information and in this context role of IT can be significantly accepted.

## ROLE AND NEED OF IT IN ADPS

Before advent of I.T. tools survey process of ADPs was wearisome. For feasibility of ADPs individual, group or mass contact is done. Again for method and result demonstrations farm and home visits are done, bulletins, posters & leaflets are used or even fairs were organized. The communication based on postal artifacts supported ADPs for years and it even prevailed in era of telephone and television. Thus, during this period data was maintained on papers sheets, and analysis of this data was more tedious process. The information technology revolution made task viz. data

collection, analysis and reporting of ADPs softer. With the usage of I.T. based tools a new term "Electronic extension" was coined it is also known as I.T. oriented Extension.

The tools like radio, television are very popular in initial stage. The television is well acclaimed since its inception, as it provides information imparting via sense of sight. Various methods viz. puppets, film strip, photographs, visual model, slides etc are well known on television. In today's era it is one of the best tools for demonstration and technology transfer.

Newly introduce data collection tools like Google & Microsoft forms. These forms allows user to collect data using device like computer or mobile which mitigate usage of paper and pen and even saves time in analysis. This data can be stored in local machine or even on cloud. Storing data on cloud make it omnipresent and sharing of this data gives new wings of easy accessibility.

Another emerging open source I.T. based tool ODK collect is widely used. It allows data collector to store data on mobile and then upload it on its server, whenever internet is accessible. The users on this server can be assigned different roles to maintain security and authenticity. . The users of this tool can also record geographic location and even boundary of entity. This data can be easily downloaded and used on local machine for analysis. The server where data is stored can also be used to do preliminary data filtering, rectification and analysis. It even provides facility to generate report in graph format. For this method of data collection one need to create data collection forms for which basic knowledge of computer is required. Also, one need to create a cloud server for uploading forms and storing data, for this one should possess intermediator level of computer knowledge.

**CONCLUSION**

Currently introduced tools of Information Technology helps users to record precise more variety of data timely and share it with others. These tools also supports analysing & report generation for dissemination of results to farmers or end users. Thus, these tools assist ADPs at various stages like planning, data gathering, analysis, data sharing and generating reports for information dissemination.

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