

THE ROLE OF E-GOVERNANCE ON AGRICULTURE IN JAMMU AND KASHMIR

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ABSTRACT

in other states of India, author propose role of e-Governance in agricultural for Jammu and Kashmir. In Agricultural e-governance played enormous role in economic development of the people and greater social transformation through electronic governance. In order to provide the people of Jammu and Kashmir with better prospects and opportunities for Agricultural development, economic development, Agricultural marketing management, enhance participation of farmers in electronic governance through e-governance are envisaged. The Application of e-Governance in Agricultural sector can be used by offering services, enhance networking and communication, better awareness and information, deputation of Agricultural ricks and enhance incomes, spontaneous agricultural practices better and, facility of online trading, timely information on calamities, and weather forecasts spontaneous agricultural and better practices. However, these Application and systems are generally limited in scale and have been poor in the rural areas. Over the last few years expert's advice related to crops does not reach the farming community at the appropriate time. The Empowerment of Rural communities is critical for the development of the rural India. The unequal access to information and communication technology is hampering the capacity and production of rural agricultural activities carried out by the marginalized farmers in India. Although during last decades India has been emerging super power in Information and communication technology. The advantage has been remarkably slow moving, especially in rural and remote areas. In

these circumstances various efforts has been made by the researcher to suggest the role of e-Governance on agriculture in Jammu and Kashmir. Our vision is the farmers can get the agricultural marketing information through e-Governance across the state. The study of e-Governance in agricultural in Indian system has been carried out from the Government, published available literature, personal observation through questionnaire and personal interviews. Based on the observations made through the data analysis and making through investigations of the e-Governance model in agricultural development.



Figure 1: Evolution of Agricultural Technologies in Relation to E-Governance

INTRODUCTION

Jammu and Kashmir is a hilly state having a varied topography with a large diversity in terms of economic. Social and culture practices of three regions namely Kashmir Jammu, and Ladakh and subdivided further into twenty two (22) Districts for better administration and carrying out developmental and welfare programmes. Railways can provide a broad range of services to the poor in remote areas of the state is the major cause of worry for the people as the terrain of the state is hilly and winters are extremely staunch and get enormous rainfall and roads remains suspend in winter session. Mobile phones

and other e-Governance services can provide a broad range of public and social services to the poor in remote areas and they have become an essential as well as an essential utility for the poor. Therefore in foreaway- villages farmers use mobile phones to access the most current crop prices and migrant workers use mobile banking services to transfer money to relatives back home. Agriculture being the backbone of state economy passing through a difficult phase due to lack of attention, defective land management, insufficient land reforms, non-providing of fair prices to farmers for their crops, inadequate investment in irrigational and agricultural infrastructure. During these

circumstances it will be crucial to translate Agricultural research on a ground field, particularly in the horticulture, areas of rice, vegetable cultivation, poultry rearing, wheat, floriculture and varied other such sectors all of which have a ready market and high potential of generating employment avenues. The main purpose of this research was to develop an understanding of the Agricultural related e-Governance needs and problems of the farmers using e-Governance, with a special focus on the small and marginal farmers in using e-Governance in various agro and socio-economic situations. E-Governance played a key role to transform government by making it more accountable accessible, effective and. ICTs allow better interaction among the government, its institutions and people.

In order to provide the rural people with opportunities and better prospects for development agriculture, economic development and management process , tremendous increased participation of farmers Agriculture marketing management in electronic governance through information and communication technologies are envisaged .This presentation focus to explore the role, nature, and importance of the Digital/Electronic Governance using e-Governance and wireless technologies for

assessing the impacts of agriculture and rural development to highlight approaches and new techniques and methods for enhancing local environmental governance, having especially regarding to the range of interests and actors connected in e-Governance. Through the e-governance the poor and exploited farmers ,Zamindars can be protected in agriculture. The difficulties involved in the execution and implementation of e-Governance Initiatives and low success rates of such initiatives suggest that e-Governance is more of a managerial issue than the technological one [2]. For efficient and sustainable agriculture, it will be essential to changeover from a commodity centered approach towards farming system approach. Innovative approaches will have to be adopted to upgrade skills of the farmers and technological empowerment of farmers engaged in agriculture. Remote Sensing Technology (RS) Expert System (ES) Geographic Information System (GIS), Global Positioning System (GPS), Intelligent Decision Support System (IDSS) all the modern technology gathered together to form an agricultural management and improve productivity [3]. Information and Communication Technologies (ICT's) also has created new opportunities to accelerate the information

of traditional farming into precision agriculture [4]. The enormous e-Governance initiatives, projects, portal, TV programs, in India include Aksh Optifiber, 'Gyandoot' Gramdoot, Rajasthan, AGRISNET, AGMARKNET, DACNET, Seed net, Nav Krishi, MMA, Bhoomi Project, Drishtee, ITC, n-logue , TARahaat, ESeva APOne Centres, eChoupals, Karnataka KISSAN Kerala portal , KISSAN krishideepam , KISSAN Online Video channel KISSAN Tele-advisory services , KISSAN SMS based advisory [5,6,7]. This survey leads to make the model frame work for E-Governance in agriculture in J&K state.

METHODOLOGY

The present study of paper has been collected through questionnaire, discussion, interviews and personal information. Interview taken face to face became the successful.900 respondents were selected which comprises literate, illiterate, semi-literate farmers, elected members of panchyats, employees of Agriculture departments. Simple Random sampling has been has been used to select the respondents for the study. A questionnaire consists 12 questions was distributed among literate farmers and employees of Agricultural department. Survey method has been done for

satisfaction level of users and other important information related to the research. The author suggests alternative e-Governance models in agriculture based on the assessment for the major situations. The researchers have adopted simple percentage method for the analysis of data. Data collected from various groups, is summarized and analysis is done on following factors.

- Satisfaction of Govt. polices in Agriculture
- Need of ITES in agriculture
- . Value of Internet
- Usage of Computer
- Value of e-Governance
- Cost of Technology
- Usage of Mobile
- Need of training

In total 900 respondents' 450 respondents were selected for interviews and discussions and remaining 450 respondents were selected for answering questions reflected in the questionnaires. The questionnaires were distributed among various people belongs to different districts of the state for their responses. 170 questionnaires were distributed among government agriculture department employees.280 questionnaires were distributed among literate farmers community and Out of 450 questionnaires

380 people responded with different opinions/responses about the questions reflected in the questionnaire.

FARMERS DATA ANALYSIS

The awareness about e-Governance and its impact on illiterate, semiliterate literate, and farmers of rural and urban areas was studied. During the data collection it was observed that few literate farmers of urban areas were aware of computers, internet but none of them use internet, agriculture websites, for getting information related to agriculture. Very few farmers of rural areas were aware of computer technology, internet, government websites, and agriculture websites. The Figure-1 below shows the opinion of the farmers about awareness, skills and usage of e-Governance's in agriculture in J&K state.

GOVT. AGRICULTURE DEPARTMENT EMPLOYEES DATA ANALYSIS

The sample was taken from the Govt. Agriculture Department Employees. Most of the respondents in this data sample were aware of usage of computers, internet, govt.websites, agriculture website. The Figure-2 below shows the opinion of the employees about awareness, need of e-Governance in agriculture in J&K state.

DATA ANALYSIS COLLECTED THROUGH DISCUSSIONS AND PERSONAL OBSERVATIONS

Through personal observations and discussions with semiliterate and illiterate farmers, it has been observed that 90% farming community ready to get information related to agriculture through mobile voice SMS services. It has been observed that e-Governance is not finding its appropriate place in the J&K state. Young generations do not work merely because of non availability of new and modern technology. Farmers use traditional equipment like wooden plough, dibble, axe, hammer, shovel, and chisel. On one side there is shortage of trained manpower in the system and on other side there is lack of infrastructure and technology. Almost of the J&K population has access to radio, mobile, some has access to television occasionally, and well under few of them have access to the Internet and the web. This might be due to reason that the polices as framed by the Government at higher level are not in appropriate practical shape as far as implementation of these polices is concerned.

PROPOSED MODEL

The proposed model has five phases and is designed in such a way that each phase can be taken up independently

PHASE- I: ESTABLISHMENT OF E-KISSAN GHAR:

In this phase of model E-Kiosk will be installed in E-Kissan Ghar at every panchayats of the state. The kiosk operator in Kissan Ghars operates the Kiosk and access the localized web based Krishi Information System (KIS) that provides agriculture related information to illiterate and semi-illiterate farmers. This will be also act as ICT training centres for farmers. The local community will have the advantage of gaining more knowledge through E-kiosk. The E-Kiosk placed at panchayat level will be updated through central place of information (Krishi Vigyan Kendra's).

PHASE-II: DEVELOPMENT OF KRISHI INFORMATION SYSTEM (KIS) -A FRAMEWORK

In this phase of model localized web based Krishi Information System (KIS) will be developed. We thrust on the need to develop localized web based Krishi Information System. (KIS) The vision of the project is to establish a connected farmers' community throughout Jammu and Kashmir who have access to information on market demand, prices, good agricultural practices, quality agricultural inputs supported by a technology enabled robust transaction platform that facilitates all their offline

activities. The development of localized web based Krishi Information System (KIS) would need to be coordinated by NIC of the state. The server for KIS will be installed at every Krishi Vigyan Kendra's (KVK's) of the state and experts in KVK's provide information related to agriculture to farmers. Through info kiosks or with the help of mobile phones farmers can access information on market prices or on extension services. Timing is often crucial when it comes to the sale of produce. Based on results and forecasts of KIS proper planning can be made to meet the desired goals. The proposed components for KIS divided into subsystems, namely

Phase-III: Wireless Kissan Area Network (WKAN) Model:

A wireless sensor network [12, 16, and 20] is a system comprised of radio frequency (RF) microcontrollers, transceivers, sensors and power sources. Wireless sensor networks with self-diagnosing self-organizing, self-configuring, and self-healing capabilities have been developed to interrupt problems or to authorize applications that traditional technologies could not address. Once available, these technologies would allow us to find many new applications that could not have been considered possible before. Wireless

sensor technology is still at its early development stage. Applications of wireless sensors in agriculture and food industry of India are still rare. This Section intends to give an overview of available wireless sensor technologies that can enhance the productivity obtained from agriculture Sector of India [2]. An example is given below.

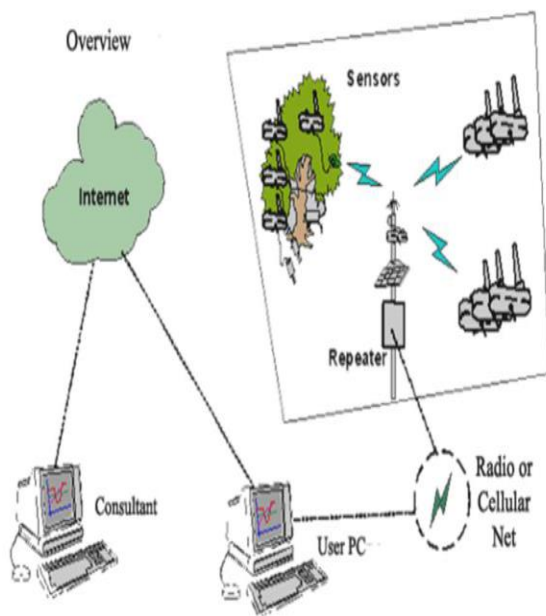


Figure 2

Phase IV: Establishment of Kissan Call centre in Krishi Vigyan Kendra at district level:

To harness the potential of e-Governance in Agriculture, Ministry of Agriculture took a new initiative by launching the scheme “Kisan Call Centres (KCCs)” on January 21, 2004 aimed at answering farmers queries on phone call in farmers

own dialect. In the states and union territories are call Centres are working in 14 different locations to enhance the services easily. This initiative provides agriculture related information to the farming community through toll free telephone lines A countrywide common eleven digit number has been allotted for Kisan Call Centre. The number is accessible through all mobile phones and landlines of all telecom networks including private service providers. Replies to the farmers' queries are given in 22 local languages.

COST ESTIMATION FOR IMPLEMENTING THE E-KRISHI MODEL

It will be a joint effort of State Department of Agriculture, Department of Agriculture and Cooperation (DAC), J&K ICT Project Advisory Board for Agriculture and rural development, e-Krishi, an ICT for Development project envisioned to provide livelihood to rural people evolved in 2006, is implemented by the Jammu and Kashmir State Information Technology Mission (KSITM)[1] working under the IT Department of Government of Jammu and Kashmir. It was a joint venture of NISG, UNDP, KSITM, IITM-K[2] and Agricultural Department. It was implemented as a pilot project in Srinagar district of Jammu and Kashmir during

2006–09 through 146 e-krisi centres spread over 99 Grama Panchayats. The centres were so placed that a farmer need not travel more than three kilometres to reach any one of the e-krisi centres. Seeing the benefits of the project, the government expanded the e-krisi activities to 6 more districts in the state. The project visualized to enable farmers to interact with agri-service providers. Through this interaction marketing of agricultural produce, agricultural advisory services and soil testing services are delivered. The Agri-Business Centres attached with the Akshaya e-Kendras[4] work as delivery points. In brief, e-Krisi facilitates web-based solution for market prices of agricultural products and agricultural equipments. The project addresses the existing gap in agriculture information flow and transaction management

ACTION PLAN AND RECOMMENDATIONS:

The concept of e-Krisi has been viewed as a *manthra* for rural livelihood promotion. It was implemented through the Akshaya tele-centres in Srinagar district, Jammu and Kashmir as a pilot project with the support of the UNDP fund through NISG. It was supposed to withdraw the UNDP support after the pilot phase and aim to roll out to other districts

with the support of the state and local bodies. This study was focused to understand the background and present status of the project. The key lessons learnt from the project are as follows. Though, agriculture has been the main domain of activities of the LSGIs, most of them has not put any serious thought in supporting initiatives like e-Krisi. There are possibilities for incorporating e-Krisi in their annual budgets. However, the experience in the selected panchayat shows that the expected co-operation from the LSGs has not come up. Rural markets everywhere are characterized by asymmetric information. In Jammu and Kashmir, with a large segment of small and marginal farmers, the problem gets more complicated. Hence, a deep knowledge about the production of various crops, its time of harvesting, local prices, local markets etc., should be clear to the management of the e-Krisi. Extensive data collection at the micro level covering all aspects of agricultural operation could only strengthen the project.

CONCLUSION

From the above study it is clear that e-Governance in Agriculture is not finding its appropriate place in the state of Jammu and Kashmir. We proposed Kissan call centers to deliver the farming villagers about the telecom infrastructure. As most

of the villagers are not aware of the latest technological development in the country, these centres are specially designed to serve the purpose of creating awareness among the farmers. Toll free numbers are being provided to the farmers, as the services are to be cost free to all the needy ones. So the agriculture department and line departments, SAUs, ICAR organizations are being instructed by the ministry of Agriculture to do the publicity of toll free numbers of KCC. Publicity material includes posters, charts, training and demonstration Programme etc. The proposed E-Krishi model has touched almost all the issues pertaining to E-Governance in Agriculture. We proposed component for localized Krishna information system at the center point of village or at the most renowned places of village so that web based E-Krishna Ghar will pass the information back through appropriate interface and provides information related to agriculture to farmers. So in a nutshell it can be concluded the above proposed model will help the farmers in increasing the

productivity and leading their development and growth.

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