# RURAL AREA DEVELOPMENT USING ICT

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## ABSTRACT

India is a country of villages. Rural development is generally taken as development of rural areas. Rural development means rather a comprehensive development of rural areas in its wholesome nature. Rural Development forms an important agenda of the Government. However, the application of ICT in the Rural Development sector has been relatively slow. The main reasons for this are poor ICT infrastructure in rural areas, poor ICT awareness among agency officials working in rural areas and local language issues. ICTs can play a significant role in combating rural and urban poverty and fostering sustainable development through creating information rich societies and supporting livelihoods. If ICTs are appropriately deployed and realize the differential needs of urban and rural people, they can become powerful tools of economic, social and political empowerment.

Agriculture is an important sector with more than 70% of the Indian population living in rural areas and earns its live hood by agriculture and allied means of income. The sector faces major challenges of enhancing production in a situation of dwindling natural resources necessary for production. ICTs can play a significant role in combating rural and urban poverty and fostering sustainable development through creating information rich societies and supporting livelihoods. The role of ICT to enhance food security and support rural livelihoods is increasingly recognized and was officially endorsed at the World Summit on the Information Society (WSIS) 2003-2005. This includes the use of computers, internet, geographical information systems, mobile phones, as well as traditional media such as radio or TV. Although it is a relatively new phenomenon, evidence of the contribution of ICT to agricultural development.

***Keyword : - ICT, Agriculture, Ruler, Development, System.***

## 1. INTRODUCTION

Information and Communication Technology abbreviated as ICT consist of Information technology, enterprise software, audio-visual system, middleware using which user can access, store, transmit and modify information as required. Exponential growth of internet user, invention of modern communication devices, significant developmentin cloud and grid computing etc. have helped ICT to flourish as a rapid developed technological field in the last decade. India is a country of villages and their socio-economic transformation shall always serve as an index to development. Rural development is generally taken as development of rural areas. The concept encompasses within its scope the prosperity of people and place in rural areas. While talking of rural development the target has to be an overall improvement of the quality of life in rural areas taken as a whole and not just the development of an isolated sector. Rural development means rather a comprehensive development of rural areas in its wholesome nature.

The rural sector is no exception. New feature of today's globalization that has profound impact on rural sector is the ICT. The major objectives of ICT in rural development are to bring efficiency, openness and responsiveness along with participation in the formulation and implementation of rural development programs by the people. It contributes to qualitative and quantitative changes in rural life style. Rural development has been receiving an increasing attention of the governments across the world. India is a country of villages and its development depends with development of the people living in rural areas. India is a second most populated

country of the world but a large part of this population is leading uncertain economic life because fast growing population is non-synchronized

employment opportunities in agricultural sector. Rural Development which is concerned with economic growth and social justice, improvement in the living standard of the rural people by providing adequate and quality social services and minimum basic needs becomes essential. The present strategy of rural development mainly focuses on poverty alleviation, better livelihood opportunities, provision of basic amenities and infrastructure facilities through innovative programs of wage and self-employment. ICT is the new tool for rural development. Information and Communication Technology, if used properly can be of great advantage for the development at grass root levels.

## 2. ICT APPLICATIONS

ICTs have the capacity to significantly empower people and facilitate development. This major technological revolution can significantly influence the development capacity of any society. Their applications to agriculture and rural development are very extensive and pervasive. With telecommunication technology, computers and information processing technology, data and image transfer technology, and interactive technology, ICTs have madea

qualitative difference in the way we can generate, disseminate and transfer knowledge and promote development. The convergence of these technologies has created not only a new technological and production sector, but also a new social and economic reality in the rural sector. Increased connectivity and quicker flow of information has opened new frontiers of knowledge. ICTs develop in rural communities a learning and innovation capacity that increases the effectiveness of their efforts to solve problems and improve their lives. They empower these communities and increase the effectiveness of their development efforts through informed decision making to achieve the objectives of poverty eradication, food security and sustainable development in rural areas. However, technological applications are largely restricted to urban areas. Rural areas have not reaped enough benefits from them. ICTs must be used judiciously as important tools in developmental activities to address the problems of rural development in all sectors of the economy, such as, agriculture, energy, health and sanitation, rural engineering, housing and habitat, etc. It is, therefore, necessary, to develop and introduce appropriate of so called green technologies coupled with sound

delivery system, which ensures economic and ecological sustainability and optimum use of local resources emphasizing on technology capacity building of rural people. In this endeavor, institutional linkages and active participation amongst voluntary agencies, science and technology based field groups, R & D institutions, financial agencies and above all, people who are primary stakeholders, become crucial for improving the quality of life in rural areas to achieve long term sustainability.

### 2.1 ICT for education

Moreover, appropriate use of ICTs in the classroom fosters critical, integrative and contextual teaching and learning; develops information literacy (the ability to locate, evaluate and use information). Thus, it improves the overall efficiency of the delivery of education in schools and educational management institutions at the national, state/provincial and community level. The use of ICTs in education aims to improve the quality of teaching and learning as well as democratize the access to education.

### 2.2 ICT and agriculture

The vast majority of poor people lives in rural areas and derives their livelihoods directly or indirectly from agriculture. Increasing the efficiency, productivity and sustainability of small-scale farms is an area where ICT can make a significant contribution. Farming involves risks and uncertainties, with farmers facing many

threats from poor soils, drought, erosion and pests. ICTs can deliver useful information to farmers about agriculture like crop care and animal husbandry, fertilizer and feedstock inputs, pest control, seed sourcing and market prices.

**2.3 ICT in e-Governance**

The poverty can be adequately addressed by effective use of e-governance and ICT application in environmental management. Improved governance by using ICT can have direct impact in reducing poverty and improving the environment. ICT can contribute in a large way in making government processes more efficient and transparent by encouraging communication and information sharing among rural and marginalized people.

**2.4 Employment opportunities**

Poor people in rural localities have lack of opportunities for employment because they often do not have access to information about them. One use of ICTs is to provide on-line services for job placement through electronic labor exchanges in public employment service or other placement agencies.

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## 3. INFORMATION TECHNOLOGY IN RURAL DEVELOPMENT

ICT offers an opportunity to introduce new activities, new services and applications into rural areas or to enhance existing services. ICTs can play a significant role in combating rural and urban poverty and fostering sustainable development through creating information rich societies and supporting livelihoods. Agriculture is an important sector with more than 70% of the Indian population living in rural areas and earns its live hood by agriculture and allied means of income. The sector faces major challenges of enhancing production in a situation of dwindling natural resources necessary for production. The growing demand for agricultural products, however, also offers opportunities for producers to sustain and improve their livelihoods. Information and communication technologies (ICT) play an important role in addressing these challenges and uplifting the livelihoods of the rural poor. ICT offers an opportunity to introduce new activities, new services and applications into rural areas or to enhance existing services. ICTs can play a significant role in combating rural and urban poverty and fostering sustainable development through creating information rich societies and supporting livelihoods. If ICTs are appropriately deployed and realize the differential needs of urban and rural people, they can become powerful tools of economic, social and political empowerment. The role of ICTs under climate change situation can be explored based

on the linkages that exist between ICTs as a system component and its ability to withstand & its ability to recover and to change under changing climatic conditions. In rural communities of developing countries, with limited capacities and resources to respond to the effects of extreme natural hazards, drought, landslides, floods, and to the impacts of these events on local social systems (e.g. health, infrastructure, transportation, migration), ICT tools (the potential of telecentres for disaster preparedness and response) are emerging as an area of increasing interest.)

## 4. BENEFITS FROM RURAL E- GOVERNANCE PROJECTS IN INDIA

### 4.1 Rajiv Internet Village Programme in Andhra Pradesh

Andhra Pradesh Government launched the Rajive Internet Programme to bring the government services or benefits intended for the citizens quick, cost effective and trouble free manner through a single window, without any hassles mainly for the people living in villages and rural areas.

### 4.2. TKS (Tata Kisan Sansars)

The TKSs of farm centers, provide end to end solutions, right from what crops to grow to how to sell for the maximum returns in Maharashtra. A unique concept in the Indian country side, TKSs are changing the face of Indian agriculture and improving the quality of rural life. TKS also track parameter such as soil, ground water and weather on a real time basis with the help of Geographic Information System (GIS) and satellite mapping Technology.

### 4.3. E Chopal

This was established by ITCs Agri business Division in June 2000. It was specifically designed to tackle the challenges posed by unique features of Indian Agriculture characterized by fragmented farms, weak infrastructure and the involvement of intermediaries it provide farmers with information relating to farming equipment weather, crop and the like .

### 4.4. Gyandoot

Gyandoot is an intranet based Government to Citizen (G2C) service delivery portal commission in dhar district of Madhya Pradesh (M.P) in January 2000. Its aim to create a cost effective, replicable, economically self replicable and financially viable model for taking benefits of Information and communication Technology (ICT).

### 4.5. E-governance fails in some areas

E-governance projects have been so devised and prioritized that their remains always a risk in its implementations and its benefits not reaching the desire section of the society.

## 5. CONCLUSIONS

The use of ICT tools helps in strengthening social networks, empowerment and participation, as well as fostering productive processes at the local level through the provision of employment and skills, as well as support services for micro-enterprise activities. In rural communities of developing countries, with limited capacities and resources to respond to the effects of extreme natural hazards, drought, landslides, floods, and to the impacts of these events on local social systems (e.g. health, infrastructure, transportation, migration), ICT tools (the potential of telecentres for disaster preparedness and response) are emerging as an area of increasing interest

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