

# Information Communication Technology (ICT) and its impact in Rural Development

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**Abstract:** *Information Communication Technology (ICT) plays a key role in development and economic growth of Rural India. Political, cultural, socio-economic development and behaviors decisions today rest on the ability to access, gather, analyze and utilize Information and knowledge. The concepts, methods and application involved in ICT are constantly evolving in our daily lives. The rural development in India is one of the most important factors for growth of Indian economy. The present strategy of rural development mainly focuses on poverty alleviation, better livelihood, and provision of basic needs.*

**Keywords:** ICT, Rural Development.

## 1. Introduction

ICT has become the buzzword in the world these days. Every individual wishes to do something closely related with I.T. India is a country of villages and to improve and sustain the overall prosperity, growth and development in the global competitive regime. The rural ICT application attempt to offer the services of Central agencies (like district administration cooperative union and state and central government departments) to the citizen at their village door steps. These applications utilize the ICT in offering improved and affordable connectivity and processing solutions. It is in the nineteenth century that a revolution took place in the world with respect to ICT of communication with the application of Science and Technology. It is also in the nineteenth century that there was a transformation in the political and economic structure in India giving rise to new attitudes, new outlook and new behavior from one end of the country to the other. This to great extent has helped in the Unification of the people with diverse outlook and interests on account of rural-urban differences, caste, religion and languages differences, all of which tends to disintegrate the society.

## 2. Rural Development Schemes of Govt. of India

- **Pradhan Mantri Gram Sadak Yojana (PMGSY)**

Central Govt. of India has launched this scheme. The scheme is fully sponsored by the central Govt. the main objective of this scheme is improve the connectivity by roads.

- **Swarnjayanti Gram Swarozgar Yojana (SGSY)**

This scheme is also launched by Central Govt. For self employment such as conducting training, planning of different types of activities, financial aids, credit from Banks, organizing self help groups and subsidies.

- **Sampoorna Gramin Rozgar Yojana (SGRY)**

The objective of this scheme is to increase the food protection by means of wage employment in rural areas which are affected by Calamities

- **Indira Awaas Yojana (Rural Housing)**

The aim of this scheme is to provide housing benefits all over the rural areas in the country.

## 3. Organizations responsible for the Rural Development in India

- **Department of Rural Development in India.**

This department provides services such as training and research facilities, human resource development DRDA, supervision and execution of projects and scheme.

- **National Bank for Agriculture and Rural Development.**

The objective of the National Bank for Agriculture and Rural Development is to provide credit for the development of small scale industries, village Industries, cottage industries, agriculture and other related economic operations in rural areas.

- **Council for advancement of People’s Action and Rural Technology.**

The objective of this organization is to promote and organize the joint venture, which is emerging between Government of India and the Voluntary organization relating to the development of rural areas.

- **Rural Business Hubs (RBH).**

The objective of setting up RBH was to develop agriculture. This agency helps in the smooth functioning of Rural Business Hubs.

#### **4. Scope of ICT in the Development of Rural**

**Areas:** Recent developments in information communication technology (ICT) have introduced the immense opportunities for the development of rural area. ICT has broken all bounds of expensive cost, distance and time. The integration of computing tools and communication techniques especially through the use of internet has reduced the world into global village.

One of the important components of rural development is available communication facilities and communication techniques. Communication includes media (TV & Radio) human verbal communication and now the introduction of Information Technology. ICT can be interpreted broadly “technology that facilitate communication and processing and transmission of information by electronic means”. ICT promises a drastic change in all aspect of our lives including media, education, health, entertainment, social interaction and business.

#### **5. Role of ICT in the Development of Rural Areas**

ICT plays a major role in a nation’s politics, economy, social and cultural development. 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 deployed and realize the differential needs of urban and rural people, they can become

powerful tool of economic, social and politics empowerment. The objective of rural development programs includes the following.

- To provide basic infrastructure facilities in the rural areas e.g. schools, drinking water, roads, health facilities, electrification etc.
- To improve agricultural products in rural areas.
- To implement various govt. schemes for the promotion of rural industry and rural employment.
- To assist individual families and self help groups (SHG) living below poverty line.

In addition to development, the introduction of ICT in the education process for open and distance learning is observed as step towards improving the quality of education and bridging the social and education gap. ICT can be used for betterment of education, agriculture, social awareness and health and hygiene.

#### **6. Challenges of Application of ICT in Rural Development**

The critics have often said that computers can only provide information, transmit it from one place to another and with the introduction of internet, make communication fast. But it can neither provide people drinking water not cure their diseases. Truly speaking computer is not a magic machine that can solve all the problems of rural areas. Even if we take computer merely as an information tool, it is a great facilitator. The critics forget that villagers also have their own information needs. They need to know about their villages, their district, natural resources around them, about seasons and monsoons, about market rate of different commodities and about govt. schemes. They also need to know how much money is being allocated for rural development in their area and how much is being spend .And all these so called bits of information are related intensely to their lives and livelihood.

ICTs alone can’t be a deciding factor for the development of rural areas. Education is one of the basic problems for application of ICTs as 40% of India’s population is illiterate.

The basic challenges that usage of ICT for rural development faces are-

- Illiteracy amongst majority of people.
- Shortage of ICT literate man power.
- Unavailability of power supply.
- Financial problems as huge amount of funds are needed for the development of ICT related services in the rural areas.
- For internet services, band-width problems.

## 7. Conclusion

Information and communication technology has great relevancies in today’s world. The use of ICT tools helps in strengthening social networks, empowerment and participation in the works related to rural development. ICT tools are emerging as an area of increasing interest. If ICT is implemented properly it can reduce the gap between economically and technology backward and forward classes. Proper training and implementation of ICT related programs in local and regional languages that can be easily understood by the rural people can change drastically the development of rural areas.

## References

- [1] Aslam Development bank 2002. Fighting Poverty in Asia and Pacific Manila.
- [2] Hamelink Cee J. sine datum: Human Rights for information society.
- [3] ITU 2000 New Technologies for rural applications final report of IT U-D focus group 7.
- [4] UNDP 2001 human development report 2001, New York.
- [5] Moli and D.A. Mission “ICT education case study” research on information and communication Technology 203.

[6] ParagBhalchandra and others “ICT for Rural Development: A review of Lesson”, ICT Humans 2010.

[7] Annual Report 2002-2003 Ministry of Rural Development Government of India.

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