Information and Communication Technology for Rural Development

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Abstract: **Due to the lack of knowledge and use of ICT in rural areas, development is at a very low rate. Some improvement and advancement in the technologies provided by the government but there is no more effect in the development of rural areas. Information and communication technologies are developing day by day but are less applicable in rural areas. Lack of communication and resources are the cause of undeveloped. Main problem are in rural areas are electricity, communication, transportation and lack of knowledge about new technology. ICT is not being completely implemented by the government and non government organization for rural and urban areas. Electricity is the main hindrance in development. There may be different basic solution to solve the electricity problem by using solar energy, bio fuels, bio gas, wind energy etc. E-governance and non government organization can develop rural areas with the help of technologies.**

Keywords: ICT, Rural Development, Technologies, Communication.

1. INTRODUCTION

Information and Communication Technologies (ICT) is being used by the government and non government organization for developing the rural and urban areas. In rural areas people are less aware. Due to this unawareness people can't easily communicate to the current market and each other. Government and non government projects applications are developed as pilot projects and it's aimed to offering easy access to citizen services and improved processing of government-to-citizen transactions. Some of these have drawn international attention and have won prestigious awards for their innovative approaches. If citizens are aware about the technologies so they can easily utilize the services provided by government and non government organization (NGO). The formers and owner of household industry of rural area can sail our product at market price [1][2]. If there is proper communication and transportation available then peoples of that area can get the employment by small scale industry established by government and NGO. Electricity is the key factor for development. Some projects have experimented with the wireless technology to reach the remote locations [3].

2. ICT& e-GOVERNANCE

Information and communication technology and e-governance are very helpful for development of our country. Without the help of government we cannot implement technologies in rural areas. Government provides the authority to the organizations for implementing the technology in rural areas and also government provide various other services to the citizens for rural and urban area through internet or other media like markets, health, and education[4][5]. Furthermore, ICT can empower the poorer by expanding the use of government services, and reduce the risks by widening access to micro finance (Cecchini and Scott, 2003) [1]. Application of ICT processes governance is divided into two categories i.e. improving government process and second bounding interaction within civil society. ICT is applicable to the rural areas since 1990's.The applying information and communication in public domain by the government is known as e-governance. Further , e-governance help in providing information to citizens and it also generate innovative ideas for wealth generation for rural citizen. A study by Wilson (2000) concludes that in a developing economy like India, ICT has developed an education, governance, health, human rights promotion, communication, economic growth and other areas. By applying the supply chain management in selling agriculture products, transaction costs have substantially reduced [2].

3. ICT AND LIVELIHOOD ASSETS

ICT has an impact on livelihood assets in a number of ways depending on the local context in which they are introduced. They impact on livelihood in following ways:

i. *HUMAN CAPITAL***:** Improved access to education and training through distance learning Programs and educational tools for wide range of formats. The impact of increasing information flow, human capital needed for translating information into different languages and appropriate formats for the intended users and their local culture.

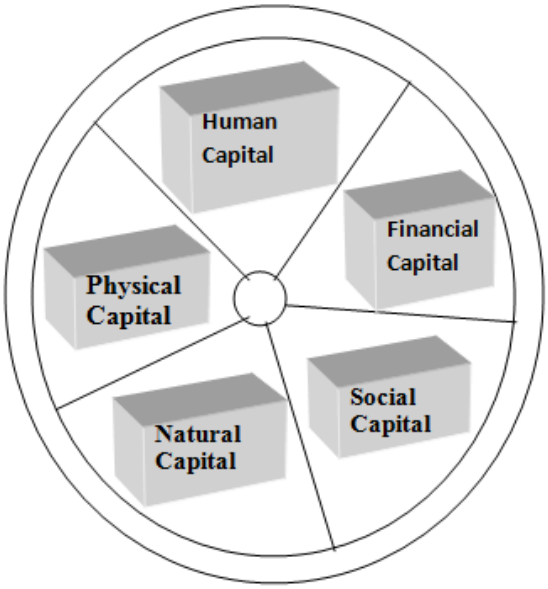

Figure 1: Livelihood assets

ii. *NATURAL CAPITAL:* Uses of ICT in rural area can managed all natural resource records such as land, cool etc. Communication channels can be enhanced with appropriate authorities, landowners, government ministries and local government officials. So that, all can communicate for take appropriate decision about the natural resources.

iii. *FINANCIAL CAPITAL:* Support and strengthening of the local financial institutions including micro-credit organizations to improve information provision on services and facilities available such as loans and savings schemes. By using ICT we can establish banking services in rural areas. So that, all the people can takes loans, save money for growth purposes.

iv. *SOCIAL CAPITAL***:** Improved 'networking' both at the community level with existing networks and potentially amongst a much wider community. The ability to build new social networks at a regional and national level can help to bring benefits to existing networks and institutions at a local level such as CBOs, FOs etc. The reduction in the cost and time taken to pursue social networking goals can also have a positive impact at a household level with family members spending less time away and less money on transport. Expanded social networks may also result in increased opportunities for employment both locally and away.

v. *PHYSICAL CAPITAL:* communication channel establish by ICT are used for access to the markets and market information helps to improve choices for the sale of goods on local markets or global market according to enhanced information on prices, comparative supply and demand for products.

4. COMMUNICATION MEDIA

For the connectivity of entire world to the rural areas, a communication media is required as shown in figure 2. Now a day's internet acts as a good communication media.

Telephonic communication media: This is one of the best communication media used in the communication between the service provider and the peoples. Through this communication media two people are interacted directly with each other. It is the oldest media of communication. Uses of telephonic media are.

i. Telephonic and Transport.

ii. Telephonic and Market Information for Agricultural Products.

iii. Mobile Phones and Emergencies.

*Telephonic and Transport***:** Mobile phones are very useful for the arrangement of travels and transports for transferring goods to market place. This reduces traveling time and provides higher productive time.

Telephonic and Market Information for Agricultural Produce: Mobile phones greatly improve the access of information about the market. so Mobile phones are also provides great help when making decisions for the best time to sell the crops. It also cuts off the middleman between rural farmer and actual buyer. so that, problem like getting chatted by middleman are completely removed.

Mobile Phones and Emergencies: Mobile phones can be used to seek for help during urgent situations or get support during emergencies. For example, some villagers had doctors' and nurses' phone numbers that were being used to seek for medical consultation.

Wireless communication media: Now a day's internet is a good communication media though which we can connect to the whole world. Wireless communication is the cheapest and most secure media of communication. By the use of wireless devices we can communicate with the network .we get the knowledge about all the activities which we want to perform

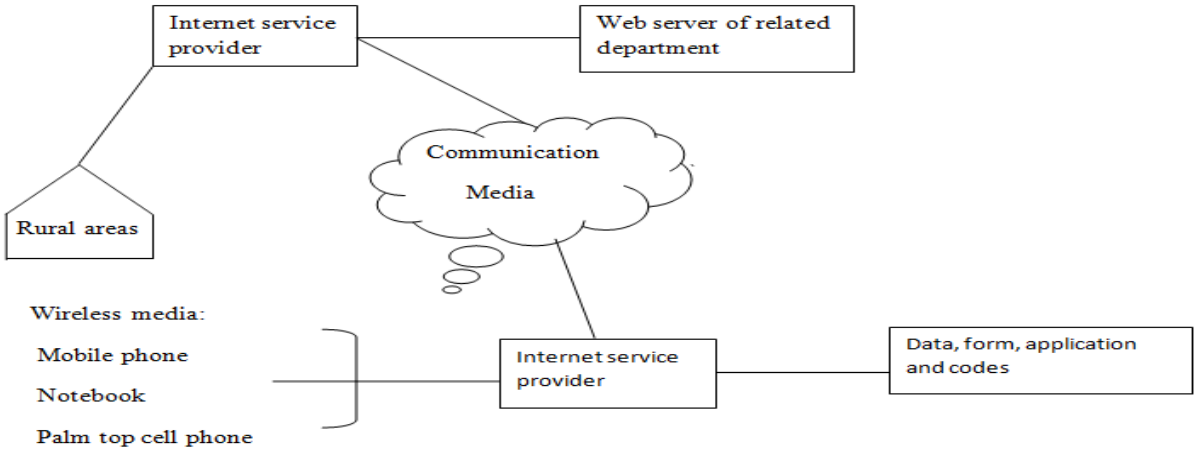

Figure 2: Communication Media

Radio communication: Previously known as "Radio Farm Forum" it was one of the earliest efforts in the use of radio for rural development. In February 1956 experiment was carried out for five districts of Maharashtra by All India Radio (AIR). So that people in rural areas listen to radio broadcasts and gain various type of profit like getting knowledge about market, country agriculturists and non-agriculturists, village leaders and others.

Satellite communication: Satellite Instructional Television Experiment (SITE) is considered to be one of the biggest techno-social communication experiments in education and rural development. It was firstly introduced

in 2400 villages of Andhra Pradesh, Bihar, Karnataka, Madhya Pradesh, Orissa and Rajasthan to provide direct broadcasting instruction and education in India. Satellite technologists called it SITE.

Communication Media for Household Income: One of the best assets for income generation for the rural people is the communication media. If communication media is established in the rural area then residents of rural area can do communication business. Example household of rural area earn money through selling mobile phone-related goods and services such as recharge voucher. Mobile phones can provide both direct (selling mobile phone services) and indirect income (monetary and time savings)

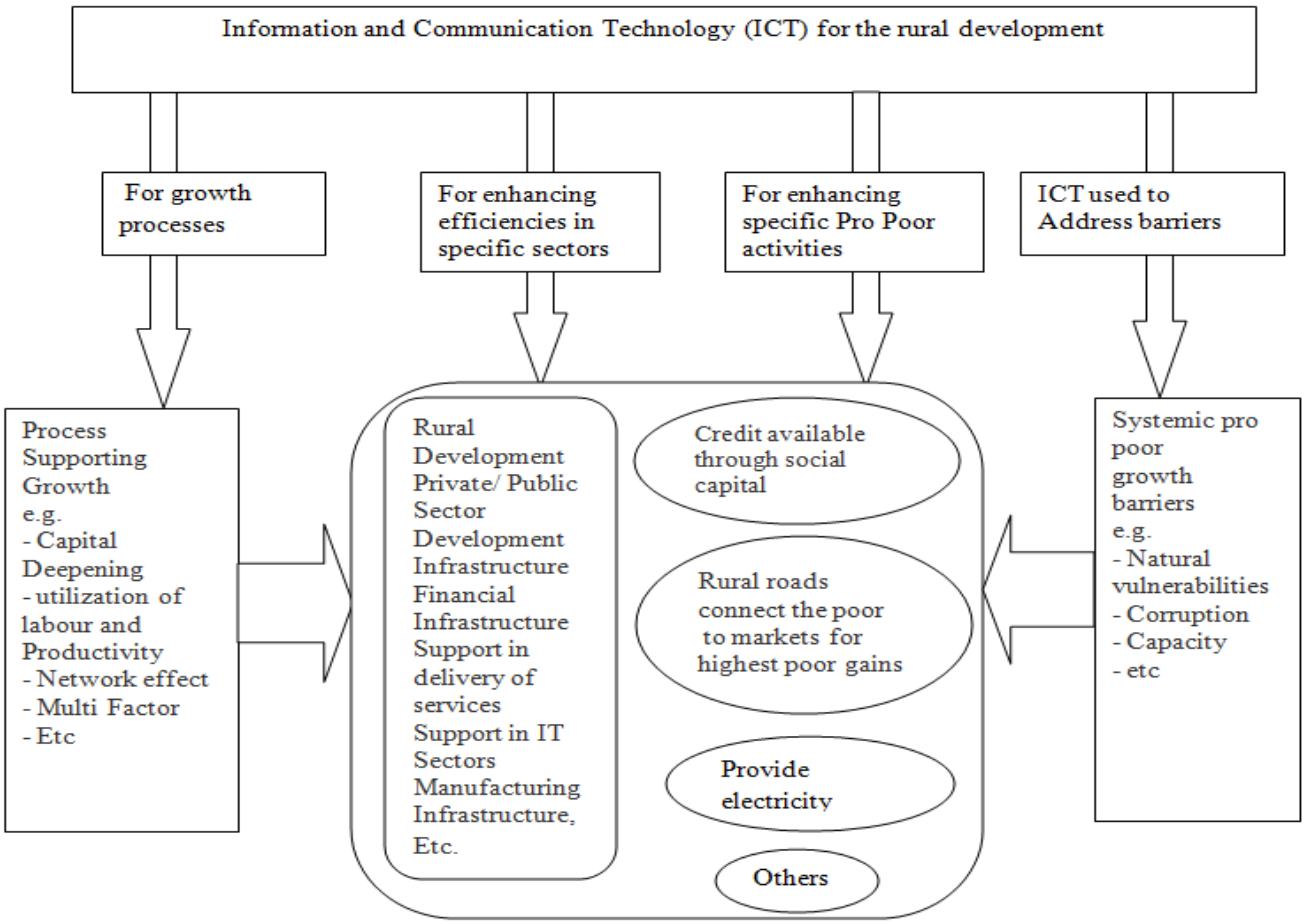

Figure 3. ICT as a key for rural development

5. ICT AS A KEY FOR RURAL DEVELOPEMENT

Technology plays an important role for developing rural areas. This is shown in figure 3 we can say that the economic growth totally depends upon the information and communication technology . By use of technology farmers or people get aware about all the things and productivity increases. If the productivity increases then the economic growth is increased at a high rate. All the people in the rural areas know about the instruments, materials and price of the product by the use of technology. If people are aware about all the technology they get maximum profit by using them, So that growth of rural development increases rapidly. Technology helps in manufacturing new goods and with the use of new and latest technologies, one can make good and attractive infrastructure. Now a day's technology changes day by day and its use plays an important role to improve the living and mental status.

6. CONCLUSION

As the conclusion of this paper, we can say that ICT is the key factor for rural development. By use of ICT development can easily increased. The primary factor of development is electricity, communication media, transportation etc. The awareness of ICT can increase the interest of people belong to rural areas. Which can increase the productivity and interaction with the current news and market and can sailed agriculture products on market price. Increased the productivity can increased the economical growth of the country.
On solving these intension problems we can improve rural areas with high rate.

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