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Impact of ICTs in Rural Development of India

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ABSTRACT:

Our Country a is rural based country. Near about 70% of the total population live in rural areas. The livelihood of the population is agriculture. The socio-economic condition of the rural population has very worse since independence. Hence rural development is the utmost concern of the government of India. Since post-independence, the government has taken various measures for the upliftment of the rural economy. Rural development is necessary for faster economic growth, social justice, and improvement of the standard of living of the rural people by providing poverty alleviation measures, better livelihood opportunities, better infrastructure facilities, etc. ICT is a new tool for rural development. Information and communication technologies (ICTs) play a tremendous role in rural development in the areas of agriculture, health, education, marketing, rural employment, disaster management, climate change, etc. However, due to a lack of growth and awareness about ICTs among the rural people the process of development is very low. This paper mainly attempted to discuss the different applications of ICT in various sectors to improve the condition of rural areas and the challenges faced by rural people for proper implementation of ICT to develop the rural economy. The present paper is natively based on secondary sources of data collected from published journals, research reports, websites, etc. and the study is descriptive.

KEYWORDS: Rural Economy, agriculture, ICT, Poverty, Economic growth, etc.

1. INTRODUCTION:

India, with its rural economy, is the 2nd most populous country, home to over 1.35 crore people. Agriculture is the primary source of income for more than 75% of people who live in rural areas. The agriculture industry accounts for over 13% of the GDP. Therefore, India's progress is impossible without developing the rural areas. Since independence, the Government of India has attempted to strengthen the rural economy by enacting various policies and measures from time to time, such as minimum support prices for cultivators, food for workers, Employment Guarantee MONREGA, and food security laws. The primary goals of these policies and initiatives for rural development are to reduce poverty, improve

livelihood options, and provide adequate infrastructure through creative wage and self-employment programs. However, in the present day, ICT is crucial to India's rural development.

Information and communication technology (ICT) emphasizes the role of integrated communication and telecommunication (wireless signals and phone lines), audio-visual systems, and intelligent building management systems in the modern IT (Information Technology) sector. ICT includes all forms of technology, including network hardware, handling hardware, communication middleware, and required software.

A vital component of any rural development initiative is information and communication. enhanced awareness of marked prices as a result of better ICT access and its effects on agricultural earnings. will be subdued if the unaddressed agricultural sector eliminates the need to transport crops to markets. ICT can strengthen the function of each governance pillar to reduce poverty as well as promote rural development. It can help the public business and other agencies communicate quickly, openly, responsibly, effectively, and efficiently.

2. METHODOLOGY:

In this paper, the secondary source of data is used. The data has been collected from online sources, published research papers, Google, etc.

OBJECTIVES OF THE STUDY:

1. To discuss ICT's role in the development of rural areas.
2. To analyze ICT's challenges during proper implementation in rural areas.
3. To find out the conclusion and recommendations for ICT's better implementation in rural areas.

ICT & AGRICULTURE:

Most impoverished individuals reside in rural areas and are either directly or indirectly employed in the agricultural sector. Agriculture accounts for about 156% of the GDP. Farmers can receive valuable information regarding crop management, animal husbandry, fertilizer, food stock inputs, seed souring, and market prices via ICTs. ICT has the potential to significantly increase the productivity of the Indian agriculture sector. Daily price updates of agricultural goods in the neighboring districts are included in the market information. is only feasible with the aid of ICT. Having a better understanding of current market data on input costs, commodity pricing, and consumer patterns can significantly enhance farmers' incomes and strengthen their negotiating position. ICT can play a big part in helping small farms become more productive, efficient, and sustainable. In addition to aiding in the digital recording of land, ICT will advance farming technology and management through ecological farming practices, efficient data

handling, etc. Considering the aforementioned information, we can conclude that ICT is currently a trustworthy tool for raising both the volume and quality of agricultural output.

ICT & EMPLOYMENT OPPORTUNITY:

The lack of awareness about them prevents the impoverished in rural India from having access to career prospects. ICT can boost employment prospects in emerging nations like India by creating new jobs as well as bettering labor market conditions. Employers can match labor skills and availability via electronic job marketplaces to meet demand. For instance, TARA Haat, a platform created to support rural Indian towns, offers information about employment openings on regional websites in the native tongue. Similarly, Babajob in India offers job search services through mobile and web-based solutions. By improving the transparency and inclusivity of the labor market, such services empower workers. Furthermore, many local women and men in rural areas now have direct employment options thanks to the creation of local tele centers in India. ICT alters how individuals work, grow in their careers, and structure jobs by making new types of work possible.

ICT & HEALTH:

India's rural areas lack access to adequate medical facilities. People in India used to physically travel to hospitals before ICT was introduced to the health care system, forgoing a day's worth of pay and employment to see a doctor. Nonetheless, the last several decades have seen a change in Indian healthcare delivery thanks to ICT. In India, the role of ICTs is to enable remote diagnosis, treatment, as well as consultation. Using ICTs to offer healthcare ensures the provision of accurate health services to the right people at the right time. Furthermore, on schedule. ICT has the power to impact every facet of the health industry.

Owing to ICT, patients can play an active role in taking care of their health. This is important for controlling long-term ailments including asthma, heart disease, etc. By encouraging the development of telemedicine, which offers the benefits of telediagnoses in the fields of pathology, cardiology, radiology, etc., primary health care costs can be decreased. It may also practically result in the CME program's operation. Arogyan, a health care initiative, was introduced in Uttar Pradesh as an end-to-end, community-based digital health mapping project. It enables Indian individuals to access their health profile data over any telecom network, regardless of where they live.

Another outstanding ICT application is "GVKEMRI." Through the 108 Emergency Service, it manages medical emergencies. The emergency call response center provides this complimentary service to both

rural and urban communities. ICT can therefore be very important in enhancing both community and individual health care. In developing nations like India, effective use of ICTs can aid in closing information gaps, if any, in the health sector. ICT integration in healthcare can help close the gaps that exist between medical personnel and the communities they serve.

ICT & EDUCATION:

India has one of the biggest and most established educational systems in the world. The use of ICT has had a significant impact on the teaching and learning process in both rural and urban India, resulting from the tremendous changes that have occurred in the educational sector. ICT is currently being used in education in a variety of ways, including open and distance learning, blended learning, e-learning, collaborative learning, and creative learning. The integration of ICT into education, both generally and specifically, has allowed educators and students to meet their requirements in several areas.

With the use of ICT, students can simply store, retrieve, alter, and store information according to their needs. As a result, it raises the general effectiveness of education delivery at the state, local, national, and provincial levels through schools as well as educational administration institutes. However, there is a substantial barrier to the effective usage of ICT in rural educational institutions because individuals in rural regions typically lack access to mobile phones, tablets, and other digital ICTs, as well as inadequate internet infrastructure.

ICT & RURAL DEVELOPMENT:

The majority of Indians—nearly 75%—live in rural settings. Their livelihood is primarily derived from agriculture. The Indian government's main goal is rural development. ICT is crucial in helping rural residents overcome their problems and improve their standard of living. ICT presents a chance to provide new programs, services, and applications to rural communities. By establishing information-rich communities and sustaining livelihoods, it also contributes significantly to the fight against rural poverty and the promotion of sustainable development. When ICT is used effectively, it may dissolve physical barriers, connect rural areas to the global economy, and significantly benefit the less fortunate.

Some states have implemented the establishment of SWAN (State Wide Area Networks) to enable residents living in villages to have electronic access to district and state administration services. Governments are using ICTs more and more to provide services to citizens where it is convenient for

them. Through the use of ICT applications, rural communities can access central agency services, such as state and district administration departments, cooperative unions, and district administration services, right at their doorstep. These apps employ ICT to provide effective and cost-efficient processing & networking options.

DIRECT & INDIRECT BENEFIT OF ICTS IN RURAL AREAS:

ICTs for rural socioeconomic development can be argued to offer certain direct and indirect benefits in the current situation. Rural communities gain directly from ICT infrastructure in some ways, including information, weather forecasting, market and health, and household and institutional benefits. Similarly, the indirect advantages of ICTs for rural households include intensive agricultural research and development, administrative effectiveness, teacher and health professional training and experience exchange, e-health services, etc.

CHALLENGES OF ICTs IN RURAL AREAS:

It is clear from the discussion above that ICT use promotes social networks, engagement, and empowerment in addition to promoting localized productive processes by creating jobs and skill opportunities. ICT can support rural development and the fight against poverty. However, rural development cannot be achieved just through ICTs. The primary obstacles to using ICT for rural development are as follows:

1. Since 40% of Indians lack formal education, one of the main issues with ICT application is education.
2. There are five to twelve brownouts and frequent power outages in rural areas per day.
3. Severe difficulty with connectivity and bandwidth.
4. Financial issues that are supported by state and local grassroots organizations.
5. Acute storage of project financiers and advisors who might guarantee ICT implementation at the local level

RECOMMENDATIONS:

1. Awareness should be created among the rural people on the use of ICT.
2. Appropriate steps to be taken to provide the necessary infrastructure to ensure successful implementation of ICT in rural areas

3. NGOs associated with the development of rural areas should undertake workshops and training programs so that ICT skills be enhanced.
4. Proper efforts should be maintained towards the promotion of literacy rate among the rural people.
5. Regular electricity supply and solar power should be provided to the rural areas for the proper utilization of ICT.

CONCLUSION:

From the above discussion, it may be concluded that ICT has an important role in the rural areas development. With the use of ICT agriculture, education, health, etc. be transformed for the fortune of rural communities. This can only be possible if there is an integrated approach and plan to link up the rural habitats to the outside communities. It is the use of ITC that can help to develop socially, culturally, and economically in rural areas. ICT helps to improve rates of literacy with the help of mobile phones & SMS. It provides various prospects in education & employment via proper training for unskilled individuals. Thus, one might conclude that ICT is a weapon employed to fight the rising challenges of rural areas.

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