E-GOVERNANCE FOR RURAL DEVELOPMENT:
ASSESSING THE IMPACT OF E-GOVERNANCE
INITIATIVES AND PROJECTS IN RURAL INDIA

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Abstract:
In recent decades, the notion of e-Governance has received special attention in the field of rural development
and its successful implementation of various welfare programs taken for the development of rural areas. The
basic objectives of e-governance programs are to provide government services to every individual 24*7 hours
in a week. It includes all those processes through which common people can access confidential data and
information about the govt. and its various development projects, programs etc. Thus, we can say that providing
govt. services at the doorsteps of the citizen through online mode is known as e-Governance. Since the
mechanisms of e-governance are has efficiency and reliability, so in recent years it is used as an instrument of
rural development and good governance. This paper aims to examine the role of various E-governance projects
and initiatives as a tool for rural development in India. In this paper, it is also trying to highlight the impact of E-
governance initiatives taken for the rural areas and its various challenges.

Keywords: E-Governance, Information and Technology, Digital India, Rural development, etc.

Introduction:
E-governance has been playing an increasingly significant role in promoting rural development and successful
implementation of various welfare policies taken for the rural mass. Good policymaking or rural development
policy management often requires the sharing of information between the rural people and the administration to
improve collaboration, up-to-date information, analysis and monitoring the different rural developmental
projects. E-government is a broad term that describes the use of ICT's such as Wide Area Networks, the Internet
and mobile devices by government bodies that have the capability of transforming relationships with people,
enterprises and other governmental divisions (Macintosh, 2004). The motto behind e-governance is to provide
SMART (Simple, Moral, Accountable, Responsible and Transparent) government to the common people. E-
governance not only includes electronic interaction and exchange of information between the citizen and
government but also the exchange of information between the governments (i.e. government to government).
The ultimate goal of any government is to provide services to the citizens for the betterment of society through
the smooth conduction of administrative operations which makes e-governance more user-centric. It was started
many years ago in the most advanced countries of the world like the USA, UK, China, etc. to maintain
accountability and efficiency in governance and successful implementation of developmental projects. But in
developing countries like, it is still in a primary stage.

In the era of globalization, the use of Information and Communication Technologies (ICT) has brought a
significant change in aspects of life all over the world. It can provide better service to its citizens in the far-flung
areas of the country by taking advantage of information and communication technologies. Since 1990s, there
has been a significant growth of various e-governance and ICT initiatives in India which are used for the
development of rural areas of the country. The introduction of E-governance system in the administration has
helped the rural people to get better information about the market which helps to increase their earnings. Indian
farmers are mainly benefitted from radio, television and mobile phone or the internet which are available in
recent days. Such developments have facilitated innumerable services and information to every citizen where
the cost of accessing information has been one of the biggest hurdles for the poor countrymen. Through ICT,
several e-governance initiatives have been adopted by the govt. of India which have ultimately proved
themselves as a major contributor to rural development.

The objective of the Study:
• To study various E-governance initiatives taken by the govt. for rural development
• To analysis the impact of E-governance initiatives on rural people.
• To identify the challenges faced in the path of developing rural areas through ICTs.
Methodology:
The major objective of this research paper is to assess and analyze the e-governance policies, programs, and projects developed by the govt. of India. It also emphasizes to study the challenges and opportunities vis-a-vis IT initiatives in the developmental sector of India. The methodology of this paper is descriptive and the required information is collected from different secondary sources like books, research articles, periodicals and newspaper reports, websites of Ministry of Rural Development and different government documents, etc.

E-Governance in India:
E-Governance has the greatest potentiality to contribute towards the development of comparatively backward rural areas. In India, utilization of e-Governance in the rural areas is relatively slow, as much of the e-Governance funding and efforts have existed in the urban areas of the nation. Since 1990s the Govt. of India has begun to apply several communication technologies and initiatives such as e-governance, telecommunication and telemedicine, e-commerce, and community information centres through internet facilities to provide economic benefits to society. The applications of ICTs for e-governance in rural development can be classified as 1) Rural people can take part in the decision making the process of administration through various e-governance or ICT tools which will help to the formulation of successful development projects, its implementation and monitoring 2) Increase transparency in administration which is beneficial for the citizens; 3) empowerment of citizens through access to all kinds of information and technical knowledge, and 4) Provide training to the unemployed youth to expand employment opportunities in rural areas. 5) Reducing corruption and saving time and money by cutting down the experience 6) providing information towards the unserved groups. 7) Most of the state governments in India have taken e-governance initiatives through the use of ICTs and Internet facilities in the mobile, computer etc. 8) According to Baggaetal., “e-governance is a government-to people-to government approach through which people can directly access the govt. records, rules and information about the entitlements those are necessary to carry out their daily lives... 9) It also runs a strong resistance in the administration by eliminating middlemen between the people and the administration which is beneficial for the common people. 10) E-governance is seen as a vehicle to initiate and sustain reforms by focusing on three broad areas and they are Governance, Service to the common people and Management.

E-Governance Initiatives in India for development of Rural Areas: 
India has completed more than 70 years of its independence but still 69.84% (Census Report, 2011) of the total population lives in rural areas. The rural areas are remained lagging in comparison to urban areas in terms of infrastructures and services such as roads, nutrition, schooling, and government services etc. Taking account of these prevailing features of rural India, e-governance has gained its credibility as the gateway to flow information and to accelerate the successful implementation of rural India's development programs. Undoubtedly the Government of India has made considerable efforts like Digital India campaign initiated in 2015 to reduce the digital divide and E-governance and ICT has been proved to be a tool for its successful implementation. As per Chambers rural development is a strategy that enables people to benefit themselves and their families by fetching more of what they need. Singh defines Rural Development as a process that leads to sustainable improvement in the quality of life of poor people residing in rural areas. However, the use of e-governance in the rural development sector has been relatively slow in India because of its poor rural infrastructure and lack of awareness among rural people. Despite the slow deployment, there are lots of e-governance initiatives, which are engaged in the development of the rural area. For instance, e-Governance applications such as CRISP, NEGP, NIC, E-choupal, Gyandoot, Jagriti E-Sewa, Akashganga, TKK, Kisan Call centre are functioning for rural development in India. Implementation of various tools or techniques of e-governance in rural India will promote rapid, transparent, accountable, efficient and effective communication among rural citizens, not only fostering development in rural areas but also saving time and transaction costs of the government.

Computerized rural information System Project [CRISP]: The govt. of India has already taken various poverty alleviation programs but still many people live under the below poverty line. To successfully implement the poverty alleviation programs through a Computer-based Information System, the govt. has launched CRISP to assist the District Rural Development Agency [DRDA]. So far the govt. have developed four versions of CRISP application software packages and the Rural Soft 2000 was the latest one. Through Rural Soft 2000 common people can access all information on government portals and it also helps the government to monitor the progress of various agencies and its activities. It has been implemented in 15 districts of the country, which have been wired using state-of-the-art VSAT (satellite-based) network by the ministry.

NEGP & NIC: with the help of the National Informatics Center, Government has launched the National e-governance plan to monitor all e-governance initiatives in India.

- NeGP: National e-Governance Plan was launched to available and accessible all kinds of public services and information to the common people of his locality through common outlets. It helps to ensure efficiency, transparency, and reliability of the govt. services at affordable costs to every citizen of India. NeGP was launched on May 18, 2006, which contains 27 Mission Mode Projects and 8
components under the banner of the Department of Electronics and Information Technology (DEIT) and Department of Administrative Reforms and Public Grievances (DAR&PG). It was specially designed for rural areas so that the rural people can easily access the services provided by the State-Wide Area Network (SWAN) and Common Service Centre (CSC).

- **NIC:** It is a part of the Indian Ministry of Communications and Information Technology's Department established in 1976. It is a website designed for all the e-governance initiatives taken by the government in one place. It provides a helping hand to the govt. IT services and the successful implementation of Digital India programs of govt. of India. It includes blocks, districts, state government, and central government etc.

**E-Governance Projects in Rural India:**

**E-Choupal:**
India has witnessed massive industrialization in the past decade but still, agriculture plays an important role in the economy of the nation. At every stage of selling their products to the consumers, the exploitation made by the intermediaries to the illiterate farmers is very much common in rural India. Such intermediaries or agents add their profit margin and try to hinder the market information to the farmer. To eradicate such problems among the rural farmers, the International Business Division of Indian Tobacco Company (ITC-IBD) initiated a step called e-Choupal (which means a village meeting place) which gives immense benefit to the farmer. Under this initiative, various e-Choupals were set up in around 6500 villages by 2012 and each e-Choupal was equipped with a PC, internet connection, printer, and Uninterrupted Power Supplies (UPS). Through this, the managers at ICT-IBD could fetch the raw materials directly from the farmers at the chipset rate and the farmers were also benefited immensely because of the absence of an intermediary person. Indian Tobacco Company Ltd. has added 7 new E-Choupals in a day and is planning to scale up to 20,000 E-Choupals which will cover total 100,000 villages in 15 states, servicing 15 million farmers by 2020.

**Gyandoot:** To make direct communication between the administration and the rural mass Madhya Pradesh govt. has launched Gyandoot project at Dhar district in January 2000. Under this projects, the Civil Servants of the state often consulted with various Gram Panchayat which helps them to understand the problems, hopes and aspirations of the rural mass. The trained unemployed youth of the district started a rural internet system Soochnalaya, which is implementing all the programs under the Gyandoot projects. It is very beneficial because of its economic and helpful nature to the rural poor people. They provide various services and information about agriculture, education, health, market and user fees and issues related to women, etc. They further serve in making an application for the services provided by the district headquarter for ownership of land. Above 600 villages and approximately 50% of the total population of a district are covered by this network.

**Jagriti E-Sewa:**
Jagriti e-Sewa is very much suitable to all the people in a developing nation like India because it helps to establish various Information and Communication initiatives in the rural and semi-urban areas of India which is people-oriented. It makes all kinds of information and data easily available to all through ICT and e-governance initiatives at the minimum costs. In this project often old computers are used and providing information to the people with the help of Dial-up telephonic lines. Generally, it takes less time in performing any kind of change like language and others. It is seen that these kinds of projects are often established at the centre of the village or other renowned places of the village so that they can cover a minimum of 25,000-30,000 villagers.

**Tata Kishan Kendra (TKK):**
In some agriculture-based states of Northern India like Punjab Uttar Pradesh and Haryana, TATA Chemical Limited established Tata Kishan Kendra (TKK) with a holistic idea to provide some basic information to the Farmers. With the help of Geographic Information Systems (GIS) TKK collects basic information about soil, groundwater, and weather etc. which are considered very much essential for the crops. It also informs about the socio-economic, administrative and physical set-up like roads, buildings, rivers, availability of electricity connection etc. in the forms of digital maps to the clients. It also helps the farmers by taking the images of insects through satellites which enhances the productivity of the rural farmers. Thus, the rural farmers are immensely benefitted from the Tata Kishan Kendra.

**Kissan Call Centres:**
Most of the farmers in India are illiterate and they have no idea about the modern technologies that are used in the agricultural sector. So they have to face lots of problems and many questions remained unsolved in their minds. To remove all these problems the Department of Agriculture & Cooperation, Ministry of Agriculture started Kissan Call Centres on April 2002. These call centers are established specially to respond to the queries made by the farmers in their respective languages. Therefore it changes the language of conversation every 50 km. As most of the villagers are not concern about the use of technology in their agricultural sector, these initiatives are taken to create awareness among the farmers. The farmers are benefitted from these because by using Toll-free numbers they able to collect various information without any cost.
Managerial Implications: It is seen that in India there has been a significant growth of E-governance or ICT initiatives over the period from 1990-91 to 2006-07. As an important tool of modern days, E-Governance initiatives are trying to provide better information and services to its citizens about govt. and its various people-oriented programs and projects. It involves the common people more closely with the administration so that they can enjoy the fruits of various developmental projects. E-Governance initiatives have changed the hierarchical system of the administration which are mainly responsible for the existence of red-tapism almost in every govt. offices. Availability of all kind of information and services for common people make the administration and its policies open for all. Thus the administration or the govt. becomes more citizen-oriented. In India, ICT or e-governance applications were introduced around 1990s but its growth rate is still very slow more especially in rural areas in comparison to the other developed countries. India is ranked 19 out of 57 countries in terms of the e-Governance offerings because of its limited internet facility, less number of digital literacy etc. But in the 21st century, successful implementation of various developmental projects is dependent on the sound E-Governance policy. Thus the govt. should give more importance to the successful implementation of the e-governance initiatives and projects so that loopholes can be withdrawn from the digital platform.

Challenges of E-Governance in India:
E-governance was introduced for the enhancement of the communication system between citizens and administration. But the government of India has been facing lots of problems in implementing these techniques and methods. A few of the problems or challenges faced by the government are listed below-

- **Illiteracy**: The government of India has taken various schemes and projects to enhance the literacy rate in rural India but it is still far away from the urban literacy rate. The literacy rate in rural India stands at 67.67% with a rural male literacy rate at 77.15%. But the female literacy rate is quite low that is only 57.93%. Most people don't know the use of ICT tools and thus the rural people aren’t able to enjoy the fruits of government schemes like AGMARKNET, Bhoomi, etc. which requires enough technological knowledge from the beneficiaries.

- **Varied Languages**: Indian society is a multi-ethnic and diverse society where each ethnic group of people has their own culture and languages. It is seen that most of the rural people in India only speak their native language and they are not familiar with other languages except the mother tongue. But all the e-governance applications use English as the base language which is not understood by the majority of the rural people. Thus, they are often deprived of getting proper information about the govt. and its various development schemes.

- **Lack of Awareness**: Most of the rural people aren’t all concerned about the use of ICT tools and e-governance applications established by the government for the welfare of the rural areas to enhance communication networks between the people and the administration. Although, Government has taken various initiatives by broadcasting their projects on radio, TV and putting banners, etc. to create awareness among the people, the rural people are less benefitted from all these programs only because of its lack of cognizance.

- **Hesitation to change**: Rural Indian people aren’t interested to accept any kind of changes in their day-to-day lives which proves the reluctant nature of the rural mass. Introduction of e-governance application in the administration has changed the functioning procedure of official works from manual to computerize based. But interestingly, it isn’t welcomed by the employees as well as the general public because they have great hesitation in the minds to learn new things for which they need to invest more time and effort.

- **Infrastructure & Running Cost**: Successful implementation of e-governance programs in rural areas requires the assertive IT infrastructures which are lagging in most of the villages in India. Most of the remote villages of India are still not connected with the electrical system. In those villages watching TV, using the internet remained a dream for the common people because of which rural people are not at all concerned about the govt. welfare programs. In the absence of rural IT infrastructure, the people have to move to the nearby town because of which they have to pay a huge amount of money to access information through e-governance applications. Thus, it can be said that poor IT infrastructure and heavy running costs remained an important confrontation in the process of successfully implement rural development programs through e-governance initiatives.

Results and discussion:

1. In recent years, through various E-governance projects the govt. are trying to promote rural development by facilitating internet services to all the rural areas at a low cost which helps to increase the productivity and efficiency of the administration as well as strengthen the co-ordination between the administration and its citizens. Thus, it is also playing a key role in the socio-economic transformation of rural areas more particularly in developing countries. Under the banner of e-governance, the use of ICTs helps the rural people to perform their public affairs, efficiently utilize public resources so that they can ensure the rights of the citizens of the nation. E-government also seeks to incorporate offices, departments and agencies of government for the all-round development of the rural mass.

2. With the use of ICTs and e-governance initiatives of the Govt. the rural farmers of India can overcome many infrastructural limitations like rural alienation and deprivation etc. Most of the rural poor people are often unaware of their rights and privileges, allowances and the existence of different government
schemes and extension facilities. In this context, E-governance initiatives can provide a better standard of living for rural poor by providing information about government services, better access to markets, healthcare and educational facilities. The growth of rural telephony, particularly mobile telephony, has resulted in enhanced connectivity and moving rural India toward economic prosperity, wealth creation and poverty reduction.

(3) The govt. of India has used the E-governance mechanism in various rural development schemes taken for the welfare of the rural people like MGNREGA NHM etc. which increase the efficiency of the administration. The use of computer, internet system increase the co-ordination better in the development programs which make these schemes more successful as well as transparent by saving time and money.

(4) One of the basic problems relating to the socio-economic development of rural India is the difficulty in human capacity building for users and administrators in particular. Some other challenges like policymaking, alignment of government information, and citizen’s ability to interact are also related to it. E-governance can be used positively to affect manufacturing growth, cost efficiency and competitiveness in the business sector, which is the benefit that developing countries will draw on their economies. It can also be used to promote economic development, improve academic and learning standards, and address gender issues within society.

(5) Numbers of NGOs also used ICTs to perform their day-to-day activities which are formed to bring certain changes towards the socio-economic scenario of the society. For example, the Self-Employed Women’s Association (SEWA) in India used ICT applications and regularly informs the farmworkers about the price of the commodity or crops through SMSs and helps the farmers to identify the best places to sell their products. They also support vendors in marketing their fruits and vegetables around wider areas so that they can earn higher incomes.

(6) Problems of illiteracy and lack of awareness have remained as one of the greatest obstacles towards the development of the rural areas of India. In recent decades, the literacy rate in India is increasing day by day, but still, a large section of people don't have the basic knowledge about the use of E-governance initiatives and other ICT tools. At the same time, the poor economic condition of the rural people also keeps them out of taking the advantages of E-governance programs.

Conclusion:
E-governance is a tool to accomplish the goals of good governance. It is the most important phenomenon in present-day societies because it is trying to reduce the digital divide among the people in developing nations like India. There are various projects which were already started by the government of India like ICT, e-Governance, Digital India. The tool of e-Governance is helping in strengthening social networking sites, rural empowerment, and people’s participation in the administration etc. E-Governance is the need of the hour so that basic facilities can be provided to rural people at the cheapest rate. The Govt. should provide adequate technological resources to the Panchayati raj institution so that they can play a meaningful role in rural development. So, in a nutshell, it can be concluded that increasing digital literacy with the help of technological advancements are leading and will lead rural development India into a new milestone. As if the ICT application in e-Governance is successful it provides a one-stop solution to problems that have risen by the rural community.

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