

Emerging Role of ICT in Promoting Good-Governance and Rural Development India

Nagendra Nath Gogoi

Abstract: Information and Communication Technologies (ICTs) have received special attention in the pursuit of good governance and have been regarded as the source of development in contemporary times. Since ICTs are efficient and reliable, they are now working in most countries as a mechanism for good governance and development. The aim of this paper is to examine the role of ICTs as a mechanism for good governance and rural development in the context of India. Emphasis has also been given to identify some of the ICT tools needed for good governance and suggest policy directions that will foster best practices for the science and technology ministry in India. A desktop research approach was used in this paper to evaluate some technical details on the ICT tools in achieving good governance and rural development in India. In conclusion, appropriate policy suggestions for optimal use of ICT in promoting good governance and rural development in India have been suggested.

Keywords: E-governance, Good Governance, ICT, India, Rural Development

I. INTRODUCTION

Information and Communication Technology (ICT) is playing an increasingly significant role in promoting good governance and making policy framework for rural development. Good policymaking or policy management requires the sharing of information in order to improve collaboration, up-to-date information, analysis and monitoring. ICT as a term covers all types of computing systems, telecommunications and networking systems. In short, it is a digital way to capture, process, store and disseminate information (Duncombe and Heeks, 1999). Quoting Michiels and Van Crowder (2001), the 'Magic Box' paper has defined ICTs "as a range of electronic technologies which when converged in new configurations are flexible, adaptable, enabling and capable of transforming organisations and redefining social relations". Today, ICT finds expression in digital technology and all its implementations and variations, including the Internet, laptops, mobile devices, various electronic technologies such as e-banking, e-commerce, telecommunications and digital media. One practice that has attracted particular attention in recent years is the use of ICTs to promote good governance, typically under the banner of e-governance.

Facilitated by internet access, such innovations have only lately become affordable for mass deployment, providing the opportunity to increase public administration productivity and strengthen the interaction between government and citizens. For some time now, ICTs have played an important role in rural development initiatives primarily aimed at improving quality of life in rural areas. In recent years, ICT has been regarded as a driver for development and an energy source for the socio-economic transformation of any nation, particularly in rural economy of a developing country. This paper is an attempt to enumerate potential role and importance of ICT tools in accelerating good governance and rural development. In addition, this paper provides some policy directions that will help to foster good governance and rural development in India.

II. METHODOLOGY

This paper is a descriptive and analytical in nature. The methodology adopted is based on series of intensive review of literature and explores the changing role of ICT in the effectiveness of good-governance. The paper primarily attempts to understand the role of ICT in good governance and rural development in India. Essentially, this study aims to analyze the report and papers published on ICT, Good Governance and Rural Development by numerous scholars in India and abroad. It investigates how ICT has accelerated the effectiveness of good-governance and rural development. Both the primary and the secondary sources are used in this paper. For the primary sources of information solely based on the data collected from the different villages of India. In the secondary data the characteristics such as consistency of data, adequacy of data and suitability of data have been considered.

III. ICT, GOOD GOVERNANCE AND RURAL DEVELOPMENT

Information flows and accessibility to more information affect the governance quality which in turn leads to better quality of lives. More information makes it possible to properly analyze, monitor and assess activities that are critical for the economic and social well-being of citizens (Islam, Roumeen, 2003). This helps policy makers to better assess prospects and mitigate threats. It facilitates decision-making in the political and economic sectors to enhance social welfare. Empirical analysis has shown that countries with improved flow of information have better performance governance and development. Avgerou, C. et. al. (2005)

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researched the possibilities of ICT to transform governance and how it can become a significant tool of improving public administration and reinforcing democracy. ICT as a mechanism has benefited every development sphere- aiding the work of peasants and mini-entrepreneurs; generating ICT-based jobs; providing assistance to educators and healthcare workers; influencing political change etc. (Heeks, 2017). The advances in ICT and the internet offer opportunities for transforming the relationship between people and governments in new ways that lead to achieving good governance. It has created new opportunities for policymakers to deal with things better and more effectively through the efficient use of information and re-engineering processes. ICT technologies have thus proven to be powerful tools for achieving the goal of good governance. According to a world bank report(UN DESA,2018), about 45% of world population are from rural area and for developing countries like India, Pakistan, Bhutan China, Bangladesh, the percentage is 66, 63, 59, 41 and 63 respectively. Michael L. Best and Sylvia G. Maier(2007) extensively document the information and communication needs in rural South India through gender lens and highlight certain critical issues that need to be taken into account in the design of ICT projects. They provide three specific suggestions on how to develop ICT facilities to better serve the needs of rural Indian women. First, they suggest the reduction of the cost of Internet services. Second, they recommend that ICT should be design in a way that it provide them with an independent source of income, economic and social strength, and make women as a role model for other women in the community. The third suggestion is to make women-specific applications easily available. Thus, ICT has the potentiality to contribute to the development of rural India. Nevertheless, the use of ICT in the rural development sector has been relatively slow, as much of the ICT funding and efforts are concentrated in urban areas. It is because most operators and investor focus on high-margin prospects in urban areas for commercial reasons. In rural India, agriculture and allied activities are considered as significant sector with over 70 percent of the total population living in rural areas and earning their livelihood from agriculture and related activities. Given its high potential, the sector faces major challenges in increasing productivity in a situation with diminishing natural resources required for production. ICT can play an important role in addressing these problems and improving the livelihoods of the rural poor. ICT offers an opportunity for new activities, new services and technologies to be implemented in rural areas or to improve existing infrastructure.

III. EXECUTION OF ICT FOR GOOD GOVERNANCE IN DIFFERENT FIELDS

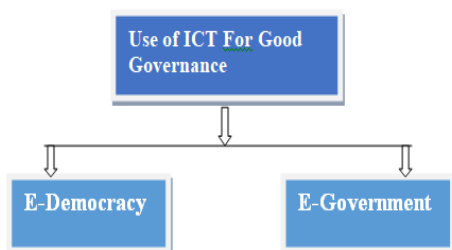


Figure 1: Showing the Execution of ICT for Good Governance in Different Fields

A. E-Democracy

E-Democracy is commonly defined as the use of electronic communications technology and networks to improve democratic processes and increase democratic participation. E-Democracy is defined by Macintosh(2004) as the use of ICTs and strategies in political and governance processes. The ICT-based governance has the ability to facilitate democratic elections and good governance. In this respect, the use of electronic voting machines is a good example. Indian politics have become highly reliant on the Internet in the recent period, as the Internet is progressively becoming the primary source of information for most Indians, especially young people. The Digital world educates people about democratic system, helping people stay up-to-date with what is going on in their nation. Online advertising for political candidates and community views on propositions is becoming more common. The Internet helps people gain information on politicians and express their views on a government's decisions about different issues. It allows people greater leverage and pushes politicians to make policies more open and quicker. The rise of e-Democracy is marked by a shift from passive access to information to active citizen engagement.

B. E-Government

E-government is today recognized as an essential tool for maintaining accountability and efficiency into governance. E-government is a broad term that describes the use of ICTs 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). It could also imply the use of ICT to improve connectivity and delivery of government services to the benefit of everyone. It involves automating or computerizing existing paper-based procedures that will prompt new leadership styles, new ways of business transactions, new ways of discussing and deciding strategies, new ways of responding to citizens and new ways of coordinating and providing information (Okot-Uma, 2002). This aims to help accelerate the move of government towards good governance and increased transparency for better resource management, growth and development. E-government also seeks to incorporate offices, departments and agencies of government in a way that facilitates their on-line interaction. Therefore, e-government helps public institutions perform their public affairs, utilize public resources, and ensure the realization of rights and services. Essentially, the aim of e-government is to improve access and delivery of government services for the betterment of people. In recent times, new media such as the Facebook, Whatsapp, Twitter and various blogs have gradually enabled Indian grassroots people to obtain, disseminate and share alternative information from overseas, which is normally inaccessible from official media.

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E. E-services for citizens

E-services-to-citizen is the provision of governmental services and information to the public using electronic means and enables government to provide services to citizens whenever they need them.

For instance, the National E-Governance Plan (NeGP) is the initiative of the government of India to make all government services accessible via electronic media to Indian citizens. Under this scheme, for many of these services, people do not have to come to government offices. It can be used in their workplaces or in the comforts of their homes. E programs give citizens details information of public sector activities. This relates mainly to some kinds of transparency: to make public servants more accountable for their actions and decisions. In addition, e-services help to improve the quality, convenience and cost of the services provided to citizens. The kinds of e-services available via ICT can be broadly categorized into three segments (a) providing information (b) improving processing efficiency and (c) facilitating transactions (Banu, 2013).

F. ICT Initiatives for Good Governance and Rural Development

The progress in India's ICT sector has had significant impact in all other sectors: social, economic, health and education. Reduction of Internet costs, connectivity, online information collection and research, online learning, online transactions and e-banking have brought significant social and business benefits. Local e-payment programs have made it possible to use multi-channel payment solutions-ATMs cards, mobile phones, Internet etc. However, the transformation of retail banking market through ATMs has been the most noticeable face of today's e-business in India. Nearly all Indian states are emphasizing this sector as a tool for socio-economic development. The advancement of ICT has helped rural people better informed about the market and the many Indian farmers in remote villages benefit from the reach of ICT in the form of a mobile phone or internet.

The Government has put in motion cross-sectoral initiatives to create cooperation amongst consumers and management personnel. . It can also be used to promote economic development, improve academic and learning standards, and address gender issues within society. With over 2 million workers, the Self-Employed Women's Association (SEWA) in India pools their resources to improve their bargaining power. In addition to being a labor union, SEWA acts as a meeting point for underprivileged Indian women who are regularly marginalized across rural landscapes and alienated in urban slums. The organization sends regular SMSs to farm workers on commodity prices to help farmers to identify the best places to sell their products. They support vendors for marketing their fruits and vegetables around wider areas, and thereby earning higher incomes.

Rural areas are often seen as information-poor or lagging behind urban areas in terms of vital infrastructure and services such as roads, nutrition, schooling and government services. Taking these prevailing features of rural India into account, ICT has gained its credibility as the gateway to information flow to accelerate rural India's development efforts. However, the use of ICT in the rural development sector has been relatively slow in India. Despite the slow deployment, there is increasing evidence of ICT's commitment to rural development. For instance, ICT applications such as Bhoomi, Deesha, Dristee, E-Mitra, E-Seva, E-Post, Lokmitra, Setu, etc are functioning as effective tools for rural development in India. Implementation of ICTs in rural India will promote rapid, transparent, accountable, efficient and effective communication among rural citizens, not only fostering better governance, but also saving time and transaction costs of government. Some of the ICT initiatives in India are:

1. E-Panjeeyan- Electronic Panjeeyan by Assam government starts to deal with the computerization of the Document registry function at Sub Registrar Office.
2. SDO Suite- It is started by Assam government to grant numerous certificates such as Land Sale Permit, issue Passport Certificate, Legal Heir Card, Birth and Death Report.
3. E-SEVA- It is started by Andhra Pradesh government for facilitating the process of paying utility bills, avail of trade permit and transact on government issues.
4. FRIENDS - It is launched by Kerala Government to make online payment of water and electricity bills, income taxes, university fees, taxes on motor vehicles etc.
5. ICT applications such as Akshaya, Bhoomi, Cybermohalla, Deesha, Dristee, E-Chaupal, E-Mitra, E-Post, Gyandoot, Gramdoot, Honeybee, Lokmitra, Praja, Sari, Sks, Star, Setu, Tarahaat, Warana are in functioning for good governance and rural development in various states.

G. ICT Initiatives in Different Fields in India:

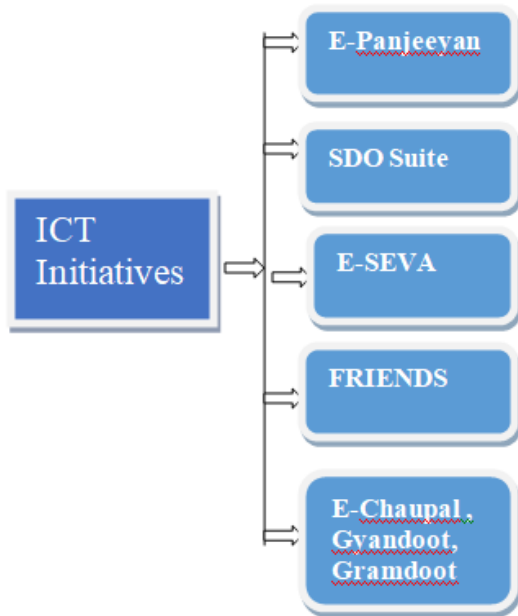


Figure 2: Showing some of the ICT initiatives in India

IV. FINDINGS AND DISCUSSION

To maximize accessibility, security, fairness, accountability, efficiency and social inclusion, typically governance mechanisms and frameworks built for it, ICT should be used efficiently as a mechanism to implement policies and initiatives successfully. The Indian Government has pursued numerous measures for the effective implementation and deployment of e-governance. The Indian government is emphasizing on “Digital India Campaign” for communicating with all the citizens through providing a Digital platform. The below mentioned Figure has shown the initiatives of government of India to make the governance system people friendly and active through using ICT mechanism.

A. Promoting Good Governance through ICT: Digital India Campaign

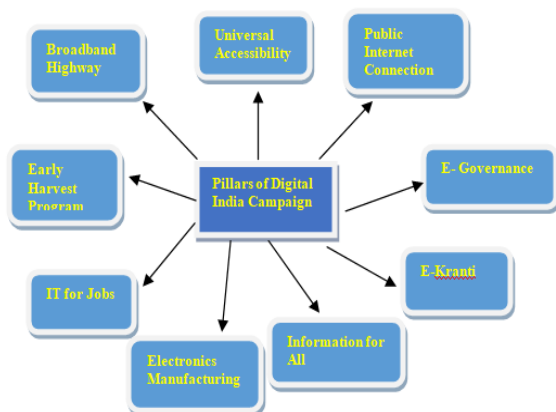


Fig. 3: Showing the Pillars of Digital India Campaign

The Digital India campaign has initiated by the Government to ensure that the services of the state are made accessible digitally to people via better online infrastructure. The initiative incorporates provisions for linking rural areas with high-speed Internet services. Digital India encompasses three key visions: infrastructure as a utility to every citizen,

governance and services on demand and digital empowerment of citizens. These three vision areas further provides nine ‘pillars’ of Digital India-

- **Broadband highway:** The installation of the nationwide optical fiber network (NOFN) in all 2.5 lakh gram panchayats will take place in a phased manner. Connection of NOFN facilities is organized to be developed as an overlay on NOFN by the government consumer system.
- **Universal access:** Guaranteeing mobile phone service in nearly 44,000 discovered towns across the nation and government is undertaking measures to ensure that all towns are covered by mobile phone network. The government has decided to construct 1,836 mobile towers to connect the unconnected areas or regions in the country.
- **Public Internet access:** To develop typical middle solutions (CSC) protection from 1.35 lakhs to 1.5 lakhs, i.e. one in each panchayat.
- **e-Governance:** Re-engineering business processes will be conducted to improve procedures and distribution of services. Through UIDAI, account connectivity and mobile platform, applications will be implemented.
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- **e-Kranti:** It focuses on the online service delivery, whether in the fields of education, healthcare, agriculture, rights or financial assistance.
- **Information for all:** The emphasis will be on online website hosting data service and practical engagement across social media and network-based systems such as MyGov.
- **Electronics manufacturing:** The focus is on VSAT, mobile electronic products, technological innovation, electronic medical devices, smart meters of electricity, smart cards and micro ATMs.
- The government coordinates on many fronts for this reason, be it subsidies, incentives, financial systems of range and the provision of cost benefits to local manufacturers.
- **IT for Jobs:** The government plans to train one crore learner for the IT sector from small towns and villages.
- **Early Harvest:** The government intends to develop the Aadhaar Allowed Fingerprint Presence System(AAFPS) in all Delhi-based central government workplaces. A web-based software application system will allow the involved stakeholders to record attendance electronically and track it.

B. Digital Infrastructure, Services on Demand and Digital Empowerment of Citizens

- The government plans to provide 250,000 Gram Panchayats with high-speed internet access. A digital identification which will be unique lifelong electronic, and legitimate will be given to citizens.



Common Service Centers will be easily accessible and every person will have a shared private space on a public cloud.

- All government departments will be connected seamlessly with high-speed optical fiber to enhance the interoperability of these departments, resulting in real-time electronic or telephone service delivery.
- The government is enabling Indian people through digital literacy and universal access to digital services under the vision of digital India. For instance, all records or certificates are to be available on cloud and in Indian/local languages.

C. ICT Initiatives for Rural India

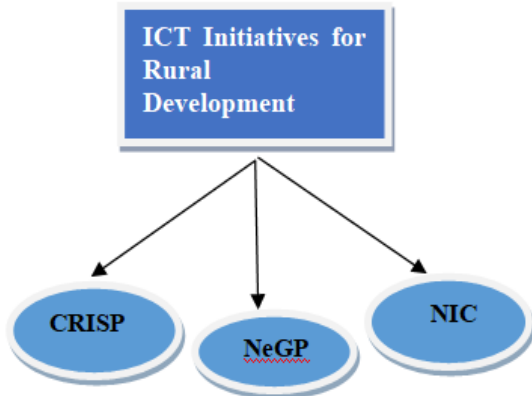


Fig. 4: Showing the ICT Initiatives for Rural Development

Computerized Rural Information System Project (CRISP) - It is designed to help the District Rural Development Agency (DRDA) in tracking poverty alleviation services through a computer-based information system. Four versions of software packages for the CRISP application have been developed so far. The fourth version is known as Rural Soft. The common people can access all details on government portals via earlier versions of Rural soft such as Rural soft 2000 and also allowed government to track the functioning of different agencies. Rural Soft is the latest in the series, a modular tool that aims to monitor poverty alleviation initiatives through web-based surveillance.

NEGP & NIC- For the achievement of e-governance, the government launched the National E-Governance Plan (NeGP) and set up a central repository for all e-governance projects.

NeGP- It was initiated with the vision of making all public services accessible to the common people in his locality by means of common service delivery facilities and ensures the quality, accountability and continuity of such services at reasonable costs in order to meet the basic needs of the common man. The Department of Electronics and Information Technology (DEIT) and the Department of Administrative Reform and Public Grievances (DAR & PG) enacted NeGP in 2006. It was designed specifically for rural areas and was developed to provide convenient access to the services offered by the NeGP State Wide Area Network (SWAN) and the Common Service Center (CSC).

NIC- National Informatics Centre (NIC) is a website designed for all government-led e-governance projects at one place. NIC's ICT network is known as NICNET. It is a part of the Department of Electronics & Information

Technology of the Indian Ministry of Communications and Information Technology.

Proposed Framework for ICT, Good-Governance and Rural Development

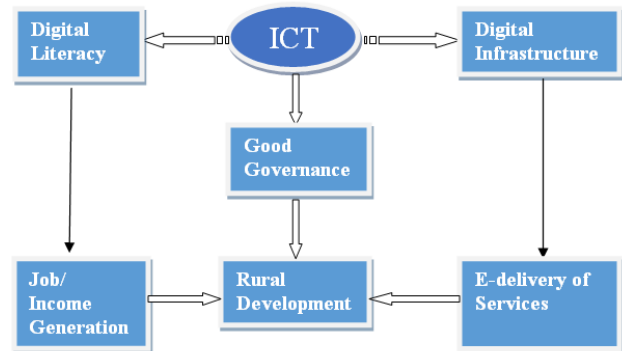


Fig. 5: Showing the Proposed Framework

V. CONCLUSION

ICT has certainly brought about considerable improvement in the paradigm of governance and development but the desired level of IT adoption in the country's governance and development areas has yet to be achieved. The optimal utilization of opportunities resulting from the proliferation of ICTs in the system of governance presents a significant challenge. However it has become an important mechanism of assistance for governance and socio-economic development, as it could tackle some of the challenges faced by the country's governance system. The Government of India has initiated various e-governance projects in view of the notion of the development of all, for the online facilitation of all government services. It can also be claimed that ICT can promote good governance, reducing corruption as well as provide people with effective and viable government services.

Although the government has progressed in introducing ICT measures in many parts of the country, in spite of this various factors are presenting a great challenge to the e-governance initiatives in India. India needs to make greater use of ICT in order to achieve good governance and boost growth and development. Some steps can be taken to foster an environment where good governance and rural

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improve infrastructure, and create the environment for viable private-sector engagement for effective public-private participation. ICT for good governance and rural development in India should be actively prioritized and assisted by mainstreaming policies into national development programs. With proper implementation of ICT, the development goal of rural areas can surely be achieved. The government and information and technology sectors should work together to implement ICT in order to accelerate good governance and inclusive growth. Apart from affordable access to ICTs, more focus must be put on the availability and relevance of services as per requirements of target beneficiaries.

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