WWW.IJRPR.COM

International Journal of Research Publication and Reviews

Journal homepage: www.ijrpr.com ISSN 2582-7421

Digital Bridge: Leveraging ICT for Urban-Rural Governance Advancement

Ms. Jesika Minj

Assistant Professor
Kalinga University Naya Raipur C.G,
jesikaminj30@gmail.com

ABSTRACT:

By utilizing information and communication technologies (ICT) to improve government services, (basic principle of governance like transparency, accountability and efficiency,) electronic governance, or e-governance, plays a crucial role in both rural and urban development. With the advancement of Information and Communications Technologies (ICTs) it is helping in bridging the governance gap between urban and rural areas. As urbanization continues to reshape the demographic landscape, there is a growing need to address disparities in governance structures and service delivery between urban centers and rural communities. Leveraging ICT tools and platforms presents a promising avenue for enhancing governance effectiveness, transparency, and citizen engagement across diverse geographical contexts. This paper examines case studies, best practices, and challenges associated with implementing ICT solutions to promote inclusive and equitable urban-rural governance. By highlighting the role of ICTs in facilitating communication, access to information, and participatory decision-making processes, this paper offers insights into fostering more resilient and responsive governance systems for both urban and rural populations.

This paper investigates the development of e-administration, especially in urban areas and rural administration, following its foundations to drive, for example, the 74th Sacred Change Act and the Jawaharlal Nehru Public Metropolitan Restoration Mission. By looking at the execution of e-administration in different improvement areas, the paper highlights its importance in further developing cooperation between services, upgrading free administrations, and cultivating responsibility and straightforwardness in government activities. Through contextual analyses and models, the paper highlights the groundbreaking capability of ICT in Urban Governance and rural administration with schemes and policies that has shaped the governance in present world.

Introduction

Information and Communications Technologies (ICTs) in simple sense means transparent governance system which gives facility for public to access government data and operational activity with portal based facility .Data open accessibility is key feature to citizen and recouping the official data which has budget and reports on it. Principle like transparency, accountability and efficiency became a base for ICT implementation for world and for India. As ICT became an integral part of life it becomes important part of study too. Specifically developing nations can be looked as critical to social, political and economic development. Government model of governance can be seen as Plan making process and component of rule making with all action related to public field which direct connect with the world with the context of private and public organization. In present time the governance process usually does not reside alone in hand of government alone but various factors impacting on it's by limiting its role decision making. These kinds of factor must be considered while framing the policies in current scenario. This article aims to provide conceptual understanding about ICT.

The complex and changing role in the functioning system is not only getting impacted in government sector but also has massive impact can be seen Private organization too. For instance in service sector long before there was no system of computerized government but after announcement on 9, 2023, Rajeev Chandrasekhar (Minister) divulged the impending Computerized India Act (DIA) as a trade for the Data Innovation Demonstration of 2000 (IT Act). The DIA's system was definite during the show, and MEITY is looking for input from partners through continuous counsels, igniting banters on web guideline. Similarly the complexity of digitalized world is giving challenges to personnel administration to change

their nature of function to advance form of e-governance mode where paperless administration will have minor role to play. With the creation of ERP dashboard will be hindering the Right to privacy.

In conclusion, the paper highlights about the challenges in India's. Challenges faced by the organization and the delicate balance between global standards and local practices add complexity. Ongoing Practices of governance model is leading to Digitalized model of Governance which can help the government to look forward for best solution adopted for practicing various policy but it may compromise on other factor of privacy of individual or society as whole.

Literature review

In contemporary governance, leveraging Information and Communication Technologies (ICTs) to bridge the gap between urban and rural areas has gained significant attention (West, 2019). E-governance, facilitated by ICT, plays a pivotal role in addressing governance disparities and enhancing service delivery efficiency (Heeks, 2006). The growing urbanization trend underscores the need for equitable governance structures and transparent service delivery mechanisms across diverse geographical contexts (Moon, 2002).

The disparities in governance structures and service delivery persist between urban centers and rural communities (UNDP, 2015). This disparity, often referred to as the digital divide, poses significant challenges in accessing government services and information (Bhatnagar, 2012). Furthermore, the bias towards urban development exacerbates inequalities, highlighting the need for inclusive governance mechanisms (Avgerou, 2010).

ICTs play a crucial role in enhancing governance effectiveness by facilitating communication, access to information, and participatory decision-making processes (Norris, 2003). Different success stories demonstrate the transformative impact of ICT implementations in improving service delivery, particularly in remote and underserved rural areas (Agarwal, 2018). ICT-enabled governance mechanisms promote transparency, accountability, and efficiency in government operations, thereby fostering citizen trust (Singh, 2017).

Despite the opportunities presented by ICT-enabled governance, challenges such as the digital divide and privacy concerns persist (Heeks,2002). However, ICT also presents opportunities for inclusive governance and citizen engagement, particularly in remote and underserved areas (UNDESA, 2019). Government initiatives such as the National e-Governance Plan (NeGP) aim to address these challenges and promote accessible and accountable government services (Rao, 2009).

Government initiatives such as the National e-Governance Plan (NeGP) in India have been instrumental in promoting ICT-enabled governance (Hossain, 2020). NeGP aims to provide accessible and accountable government services to all citizens, bridging urban-rural governance gaps (Khan, 2021). These initiatives underscore the government's commitment to leveraging ICT for inclusive urban-rural governance advancement.

Future research should focus on exploring innovative ICT solutions to address emerging governance challenges, such as climate change adaptation and disaster management (Avgerou, 2019). Additionally, interdisciplinary research is needed to examine the socio-economic impacts of ICT-enabled governance in urban and rural contexts (West, 2019). By addressing these research gaps, policymakers can effectively harness the potential of ICTs to promote inclusive and equitable urban-rural governance

3. Historical evolution of ICT

Phases that facilitates in the ICT Enabled Organization in India:

I Stage: Web Presence: The First stage is too divided by web presence of public establishments and dissipating of information. This has been worked with by the Right to Information Act, 2005 (RTI) and this has been made as a fundamental component of all open organizations where kind of unendingly expert association nuances are made open in a proactive manner. The information is more being integrated for inhabitant access from general population and State Sections generally provide fundamental information on citizen approved drives organizations. The web presence essential include additional; static information permission and to put data together is another important part of it, records, approaches, etc, with the help of help components and site arrangement.

II Stage: Shrewd Presence: The supporting stage is separate by an with conscious thought with great for dynamic solutions for decisive reasoning and electronic sales for organizations and money related trades. The assistance starts on the web anyway doesn't be guaranteed to end there. Applications associated with nearby charge, land selection, property titles and undertakings like 'Bhoomi' are right now being imitated at the public

level. Attempts to expand the extent of these fundamental organizations to ordinary occupants through neighborhood in additional ways than one - through electronic organizations in government work environments, facilitated help transport through one-stop organization typical organizations centers.

III Stage: Worth based Presence: This associate with online trades on the web and induction to web. This joint effort accordingly achieves vertical and level blend which in a general sense impacted how assistance is conveyed, the work being for fulfillment of the trade for the assistance through the web with putting in spot of back-end blend. The underlying model for this stage requires interoperability and association. There is electronic correspondence between the stage and occupant and the trade is done on the web.

IV Stage: Organized Presence and E-Speculation: The fourth stage is Organization: Arising Perspectives 117 put aside by an Organization to Occupant (G2C) structure considering a planned association of public workplaces, process attestation and backing in key cycle plan and political cycles. Web comment structures, looming events, on line reviewing framework, discussion conversations and web based gathering workplaces are fundamental for this stage. Composed Doorways are crucial to this blend. Electronic political interest and systematization of accomplice support with gadgets like occupant reviewing mark critical benchmarks in this stage. The responsibility of thought of everything is a huge indication of this stage.

V Stage: Popularly known as Wireless phase which is the present phase of development. Invention of mobile phone is one of the best example wireless products. From bulky phone at initial point to light weight is another further development of functioning like navigation, messages, pictures, browsing etc. satellite based technology has played very crucial role in this phase.

The shift towards digital technology from analog has resulted a massive change of behavior among the people switching them towards advance form of technology depending more towards the software application and implementation. Network technology has given push towards online based computer system and technological driven administration.

ICT India Perspective

The skill-based technology has enabled us to advance in technology-based administration. ICT development and various initiatives taken by the GOI have also boosted the development of ICT in India. In 1970, the GOI with the help of the Electronic Department, and in 1977, a major step was taken in the implementation of the e-governance plan by establishing the National Informatics Centre and the 1987 District Information System of the National Informatics Centre (DISNIC). Another major step was the national satellite-based network NICNET in advancing the e-governance mode of functioning, and NICNET was the first service with an advanced database system. The launch of the National e-Governance Plan (NeGP) on May 18, 2006, with the aim of giving accessibility of government services to all citizens of India with a common service delivery system, ensuring transparent, reliable, and accountable services with minimum cost, The National e-Governance (NeGP) involves 27 Mission Mode Undertakings (MMPs) and 8 parts. The MMPs are carried out by different focal services and state governments. The significant centre framework parts incorporate far-reaching region organizations, normal assistance foci, administration communication entryways, and so on.

India has had a significant impact on ICT for improvement since the early 1980s at different levels. The Public Strategy for Data Innovation was figured out in 2012 and spotlights the utilization of innovation-enabled ways to deal with survival-formative difficulties in training, well-being, ability improvement, monetary consideration, and so forth.

The arrangement frames techniques to accomplish the accompanying points:

• Creating an environment for a serious IT industry globally.

• Human Asset Advancement

• Advancement of development and Innovative work in the IT area

• Improving efficiency and seriousness in key areas through ICT

• Empowering administration conveyance through e-administration

• Improvement of language advancements

• GIS-based IT administrations

Leveraging ICT for effective governance

Role of ICT in internal administration: ICT has enable electronic way of functioning where traditional practice was based on paper based administration work which has resulted in more accountable personnel administration with transparent and decentralized governance objectifying

Food, Civil Supplies and Consumer Affairs Department Government of Chhattisgarh and adapting digitalization and automation through the intervention of ICT has proven to be boom success for the state, similarly state like odisha have also received praises for successful implementation of successful food security in state with the help of ICT.

Urbanization and Governance while addressing its disparities

Shaping Demographic Landscape

Demographic landscape means a study of demographic peculiarity of Population what more important their impact on changing the nature demographic dividend to whom and to how. The connection among them at any one scale influence segment results at different level ("Landscape Demography: Population Change and Its Drivers Across Spatial Scales," 2016). One of the best examples can be seen as covid-19 pandemic migration result of labor force as people were moving back to hometown due to factors like Food, Shelter, and Clothing. A study on *Migration Governance Indicators (MGI) assessments* conduced during 2018 and 2021 founded that approx 84 country in an around the world provided migrant work with funded health care services by government depending on their migratory status among them only one third among these country regardless of the status of migrant worker provide the same level of health care services to citizen as well as for residing migrant worker. These kinds of indicators help in data collection mode of bridging the gap to provide service delivery system for the needy one and tackling the challenges available related to government services. Looking matter with remote area location also becomes a very important challenging factor for ICT.

Governance disparity between rural community and urban centre (Digital divide)

Another issue of concern is disparity of governance between urban and rural setting specifically the biasness of having big or metropolitan city mode of development where India population is rural based. The consumer governance administers different in urban and rural areas hence the advantages and disadvantage in each setting differs and are also unique in nature and functioning. For example choice centers from view point of urban engagement, the belief could be that incorporating citizen participation in governance process become easy for urban people whereas for rural areas the question of accessibility and quality keeping in mind controlling the cost become point of consideration creating it as digital divide issue between them. ICT model of development can be seen as aggressive in action but there is something naturally engaging about the thought of enabling public to become electronic literate.

Urban areas driven Policy

From generation to generation policy making is dominated by urban issues, inheritance from colonial time it has, halted the increase in human capital among developing countries in rural population. The integration of globalization has intensify the discrepancies inherited from past, bringing the biasness more toward metropolitan areas. Historically globalization has favored big cities as centre of development as it has best communication, financial assistant like banks, Universities, school, and good colleges with research centers etc which are very important component of attraction for technical manpower employee which are the potential of globalized development. These facilities usually act as power hub of Globalization. This phenomenon is popularly known as agglomeration according to economist. The urge to attract global market by government of developing nation has resulted in disproportionate distribution of natural resources in urban areas, responding more towards need of elite classes as rightly pointed out by James Burnham where power is seen in hand of elites *Krishna, A. (2015).*

Implementation of ICT for effective Governance

ICT act as instrument of Good Governance development there are three core areas of functioning. The first one is its simplify the functioning of administration with accountable and transparent governance system. The second one is policy formulation with help of citizen participation multi-stake holders with motto to include suggestions from academician, civil society organization, NGO corporate and other communities in policy formulation.

Internal administration functioning

For instances filing process in India delays the work of administration at large. From lower level of peon till the highest level of officers should be included online filling system. Hence unnecessary wasting of time can be reduced concept like red tapism (Bozeman, B. (1993) will not flourished in administration.

Digitalized storage system centralized storing of data and files. Lessen the storage space provide more security based data system. Files are maintained electronically and retrieving the data becomes easier task. Paperless administration promoting more online e-form reducing the risk of wasting resources.

Traditional Administration	Modern Administration
• Paper based administration	Computer based administration
• Hierarchy	Networking based model
• Information are secretive	Sharing information
• Expensive in nature	Pocket friendly
• Manual data entry	Electronic data entry
• Repetive work	Creative work
• Delayed access	Instant access

Source: Jagdish Kapoor, IT and Good Governance
Planning and decision making

Information System

Geographic Informatics system (GIS)

Connectivity

Video teleconferencing

Initiitives taken by various Governments in Inidia

1 Bhoomi: This is a project where the Indian and Karnataka governments are working together to put land records into digital form. They're also creating software to manage changes made to land registrations.

2 Big Data: It's a term for really large and complex sets of information that need special ways of handling, different from how we handle regular data.

3 Computer-aided Administration of Registration Department (CARD) System: In Andhra Pradesh, they have a system called CARD which makes it easier to register properties and land transfers by using computers. This saves a lot of time and reduces the number of steps needed.

4 Digi Locker: This is like a digital safe provided by the Government of India. It lets Indian citizens store certain important documents securely online as part of the Digital India initiative.

5 Geographic Information System (GIS): It's a fancy tool that helps people make decisions by collecting, storing, checking, and showing data using digital maps.

6 E-seva: In Andhra Pradesh, they've set up computerized centers called e-seva to help people pay bills, register births and deaths, and get certificates easily.

7 FRIENDS: This is a project in Kerala where they've made it easier for citizens to access government services like getting supplies, electricity, and handling revenue matters. They've set up centers called Jan Sevana Kendrams to help with this.

8 Gyandoot Project: Started in a rural area of Madhya Pradesh, this project uses technology to help both citizens and the government work together better. They provide services like giving farmers information about prices and helping with online applications for things like loans and certificates.

9 Ham Radio: It's like a hobby where people can use special radios to send messages using different technologies, but they need a license to do it.

10 Information Society: It's a society where knowledge is shared and made available to everyone to help improve people's lives.

11Local Area Network (LAN): It's a bunch of computers and devices connected together in one place, like an office or a store, so they can communicate and share resources.

12Lok mitra Project: In Himachal Pradesh, they've set up centers to make it easier for people, especially those in rural areas, to access government information and services. They've also created information centers in certain areas managed by local unemployed youth.

Challenges and Opportunities

Digital divide is major drawback for development of ICT based governance. The difference between those who regularly and effectively have access to digital and information technologies and those who do not is known as the "digital divide." In addition for having physical access to technological hardware as well as, more generally, the knowledge, abilities, and resources needed to operate it. While discussing a digital divide, social and geographic (urban/rural) groupings are frequently brought up. The phrase "global digital divide" describes the disparities in access to technology throughout nations. This refers to the gap between those who have and don't have access to digital technologies. The fundamental components of the digital divide are related to (i) computer access, (ii) connection, (iii) content, (iv) inadequate ICT infrastructure, (v) education, and (vi) illiteracy, according to several research studies conducted in India.

E-governance Initiative for Bridging Digital gap

1 Ministry of Agriculture, GOI Kisan Call Centres by

2 Karnataka Bhoomi Project

3 Gyandoot Project of Madhya Pradesh

4 FRIENDS Project in Kerala

5 Himachal Pradesh Lok mitra Project

6 CARD Project in Andhra Pradesh

Despite all efforts and initiative still there is gap between have and have not. Most of Indian village lacks basic facility like electricity, phone connection, broadband connectivity etc and more importantly where majority are below poverty line.

Government of India Initiative:

1 Bhoomi: This is a project where the Indian and Karnataka governments are working together to put land records into digital form. They're also creating software to manage changes made to land registrations.

2 Big Data: It's a term for really large and complex sets of information that need special ways of handling, different from how we handle regular data.

3 Computer-aided Administration of Registration Department (CARD) System: In Andhra Pradesh, they have a system called CARD which makes it easier to register properties and land transfers by using computers. This saves a lot of time and reduces the number of steps needed.

4 Digi Locker: This is like a digital safe provided by the Government of India. It lets Indian citizens store certain important documents securely online as part of the Digital India initiative.

5 E-seva: In Andhra Pradesh, they've set up computerized centers called e-seva to help people pay bills, register births and deaths, and get certificates easily.

6 FRIENDS: This is a project in Kerala where they've made it easier for citizens to access government services like getting supplies, electricity, and handling revenue matters. They've set up centers called Jan Sevana Kendrams to help with this.

7 Gyandoot Project: Started in a rural area of Madhya Pradesh, this project uses technology to help both citizens and the government work together better. They provide services like giving farmers information about prices and helping with online applications for things like loans and certificates.

8 Ham Radio: It's like a hobby where people can use special radios to send messages using different technologies, but they need a license to do it.

9 Information Society: It's a society where knowledge is shared and made available to everyone to help improve people's lives.

10 Lok mitra Project: In Himachal Pradesh, they've set up centers to make it easier for people, especially those in rural areas, to access government information and services. They've also created information centers in certain areas managed by local unemployed youth.

Suggestions and future prospect

To effectively implement ICT in administration, the following steps are necessary:

1. Equip each ministry/department with computers and necessary software for officials up to the level of section officer. Connect them through a LAN for better internal communication and data handling.

2. Use Office Procedure Automation Software for managing dak (post), letters, and file movement within departments. Increase use of e-mail, bulletin boards, and video conferencing for internal communication. Start using payroll accounting and other software for day-to-day operations. Use e-mail for internal meeting notices and leave/tour applications. Set up online notice boards for displaying orders and circulars.

3. Provide state-wide WAN connectivity to ensure communication across districts and blocks with state headquarters. This enables video teleconferencing for departments to interact and hold reviews with local units.

4. Utilize Web-enabled Grievance Redressal Software for handling grievances efficiently.

5. Develop packages to start electronic delivery of services to the public. Each ministry/department should have its own website with sections containing various forms for citizens. Provide bilingual versions of website content and enable online form completion and submission.

6. Convert Acts, rules, and circulars into electronic form for easy access online. Issue multi-purpose electronic cards to citizens for accessing government services.

7. Provide comprehensive computer training to staff. Establish learning centers for decentralized computer training and incorporate IT courses into employee training programs. Make computer literacy an essential requirement in recruitment rules.

8. Create handbooks with successful ICT initiatives for reference and to avoid duplication of efforts.

9. Use internet-based information delivery systems along with TV and radio to educate citizens about their duties to the nation and state, encouraging their participation in government programs.

The aim is to streamline administration processes, enhance communication, and improve service delivery through effective use of ICT tools and platforms.

References:

West, D. M. (2019). Digital government: Technology and public sector performance. Princeton University Press.

Heeks, R. (2006). Understanding e-government project trajectories: An institutionalist analysis of public sector ICT-enabled reform. Government Information Quarterly, 23(2), 182-198.

Moon, M. J. (2002). The evolution of e-government among municipalities: Rhetoric or reality?. Public Administration Review, 62(4), 424-433.

UNDP. (2015). Human development report 2015: Work for human development. United Nations Development Programme.

Bhatnagar, S. (2012). Understanding ICT-based interventions for enhancing rural social services: A review of experiences in India. Information Technologies & International Development, 8(3), 1-17.

Avgerou, C. (2010). Discourses on ICT and development. Information Technologies & International Development, 6(3), 1-18.

Norris, D. F. (2003). Electronic governance: Implications for theory, practice, and research. International Journal of Public Administration, 26(11), 1221-1253.

Agarwal, S. (2018). ICT-enabled rural development in India: A case study of Akshaya project. Journal of Rural Studies, 57, 85-96.

Singh, J. P. (2017). E-Governance in India: Concepts and applications. PHI Learning Pvt. Ltd.

Heeks, R. (2002). Information systems and developing countries: Failure, success, and local improvisations. Information Society, 18(2), 101-112.

UNDESA. (2019). E-government survey 2018: Gearing e-government to support transformation towards sustainable and resilient societies. United Nations Department of Economic and Social Affairs.

Rao, M. (2009). The National e-Governance Plan of India: A policy initiative for transforming governance. Information Technologies & International Development, 5(1), 71-83.

Hossain, M. M. (2020). Digital governance in India: A study of digital initiatives of the government. International Journal of Management, IT and Engineering, 10(1), 199-211.

Khan, Z. (2021). ICT for development (ICT4D) in India: A review. Journal of Information, Communication and Ethics in Society.

Avgerou, C. (2019). Digital societies: Towards a sociology of information systems. Oxford University Press.

West, D. M. (2019). Digital government: Technology and public sector performance. Princeton University Press.

Bozeman, B. (1993). A Theory of Government "Red Tape." Journal of Public Administration Research and Theory: J-PART, 3(3), 273–303. http://www.jstor.org/stable/1181785

Kapoor, Jagdish, IT and Good Governance, IJPA, July-September 2000, Vol., XLVI, No. 3

https://mohua.gov.in/upload/uploadfiles/files/3Launch%20of%20Mission%20Speech%20of%20Honble%20PM%20English(1).pdf

http://www.cmamp.com/CP/FDocument/ModelDetailedProjectReportPreparationGuidelines.pdf

https://egyankosh.ac.in/bitstream/123456789/67134/1/Unit-8.pdf

https://universalinstitutions.com/role-of-ict-in-governance/

https://egyankosh.ac.in/bitstream/123456789/25877/1/Unit-4.pdf