

TRANSFORMATIONAL GOVERNMENT: APPLICATIONS AND CHALLENGES IN IMPLEMENTING THE CITIZEN-CENTRIC SERVICES IN SIKKIM



Dr Nidhi Saxena*

Dr Veer Mayank[#]

Abstract

The role of government in any democracy is to address the requirements of its citizens. This role of government in Indian federal democracy is provided in the various provisions of the 'Constitution of India'. These provisions elaborate the distribution of powers, authority and responsibility of governance between the central and state governments and make both the central and the provincial governments liable for designing and delivering services keeping in mind the interest and welfare of the public. The framing and designing of policy with citizen centric approach motivates people to participate in the system of governance. Thus, if services are launched with a necessary emphasis on the quality of services, the public undertakes participation in the system of governance. Participatory democracy is the best form of democracy which travels best on the wheels of information and communication technology. The use of information and communication technology in governance equips the government with more possibilities to reach the people. The system of electronic governance is a metamorphosis of changes in attitudes towards the governance of its services and ultimately the fundamental relationship of government with its citizens. Under the mandates of chapter III of the Information Technology Act, 2000, the government initiated the system of electronic governance and launched the Digital India program at National level. Several schemes that had a purely provincial character were launched at state level. Government of Sikkim too has launched many schemes and put efforts to bring a system of electronic government. Despite launching these efforts, Sikkim is facing challenges in implementing them. This research paper is designed keeping in mind the role of citizens in a democracy and the advantage of citizen-centric schemes. The research paper will examine various initiatives of the government of India and Sikkim government to gauge the challenges in implementing these various schemes in Sikkim. The paper argues that the designing of the policy should be based on a citizen-centric approach with the key agenda of public welfare which would reduce the impediments of implementation.

Introduction

India is a democratic republic based on the inherent and intrinsic principles of justice, equality, liberty and fraternity enshrined in the Constitution of India.¹ These democratic

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*Assistant Professor, Department of Law, Sikkim University (A Central University), Gangtok, Sikkim. nidhisaxena.law@gmail.com

[#]Assistant Professor, Department of Law, Sikkim University (A Central University), Gangtok, Sikkim. veer.mayank@gmail.com

¹INDIA CONST. Preamble

principles of the country flow from the Preamble of the Constitution itself. In a democratic setup everything revolves around the citizens or the nationals including the creation and continuance of the government itself.² This makes the role of government very important and since the government is elected by the people and is responsible and accountable to the people for all its action, it embraces a prime responsibility to satisfy the needs of society³ for which the government was chosen by the people. The agenda of a popular government should always be public welfare and the schemes the government introduces must always be with the citizen centric perspective. The responsibility and agenda of the government should be public welfare and the ways of ensuring responsibility and accountability include actively engaging the public through policies. Initially, the system of governance was process and procedure centric with a top-down approach in policy making. The changes in the system of governance have transformed public participation which is gradually increasing over a period of time.⁴ The role that the public plays when participating in governance determines the effectiveness of policies.⁵ Democracy is evaluated on the basis of participation of people in democracy and the increased participation makes a polity more democratic.⁶ Nonetheless, people may play a very significant role in the system of governance depending upon the strategies used to deliver various services to them by the government to make them participate.⁷ The strategies to deliver services include the designing of policy as well which is inclusive of the policies to implement the schemes and programs launched by the government.

Technological revolution has revolutionised the approach of government and people and this decade has seen copious adoption of technological means and devices in various sectors. Various governments across the globe also incorporated the use of technology in the delivery of services and adopted the e-Governance model⁸ including India.⁹ Adoption of the e-governance model of governance has also produced an impact on spread of globalization and provided a fillip to globalization. The E-governance model is gradually replacing the prior procedure and the process centric model that has been in vogue in the governance of the country and is gradually becoming a part of the sustainable development model of governance.¹⁰ The component of good governance in

²Nidhi Saxena & Veer Mayank, From State to Smart State - Bridging the Digital Divide in Sikkim, VI INTERNATIONAL JOURNAL OF TRANSPARENCY AND ACCOUNTABILITY IN GOVERNANCE, 41, 41 (2020).

³Id. at. 3

⁴NIDHI SAXENA ET. AL., E-GOVERNMENT AND E-DEMOCRACY: THE ROLE OF TECHNOLOGY VIS-A VIS INDIAN SOCIO-LEGAL FRAMEWORK, 361 (Cyber Crimes in 21st Century ed., Manakin Press Pvt.. Ltd. 2017).

⁵Nidhi Saxena, E-Governance - An Evaluation of Citizen Centric Services in the State of Sikkim, 12 SHRIJI SOCIO LEGAL JOURNAL. 67, 77 (2017).

⁶Russell J Dalton, Is Citizen Participation Actually Good for Democracy? BRITISH POLITICS AND POLICY BLOG Mar. 26, 2022, 8:33 PM, <https://blogs.lse.ac.uk/politicsandpolicy/is-citizen-participation-actually-good-for-democracy/>.

⁷Nidhi Saxena & Veer Mayank, supra note 3, at 63

⁸Richard Heeks, Understanding e-Governance for Development, 11 MANCHESTER: INSTITUTE FOR DEVELOPMENT POLICY AND MANAGEMENT. (2001).

⁹Mithun Barua, E-Governance Adoption in Government Organization of India, 3 INTERNATIONAL JOURNAL OF MANAGING PUBLIC SECTOR INFORMATION AND COMMUNICATION TECHNOLOGIES 1, 1-20 (2012).

¹⁰Meenakshi Madaan, Implementation of Governance Reforms in Punjab: Delivering Services with Citizen Centric Approach, CONTEMPORARY SOCIAL SCIENCES, 111, 114 (ND).



public administration has become an integral part of governance in states.¹¹ The government is required to be connected with the people for a better system of governance. When the government is connected with people it understands their requirements.¹² The advancement of technology has made it easy to encourage people and ensure with security their involvement in policy making. Nonetheless, the participation of people in policy making with the horizontal flow of communication¹³ not only establishes communication between people and government but also builds their confidence in government and system. E-governance is not merely a technological interface or an interaction of people with the government, it is a friendly, convenient, transparent and inexpensive mode of governance.¹⁴ Thus, designing schemes should embrace the requirements of the public, must address their needs and provide solutions to their day-to-day problem, which emphasises citizen centricity in policy making.

Research Methodology

The state of Sikkim hasn't been able to achieve a complete implementation of the e-governance services that were launched and several challenges are there in the execution of many e-Governance projects in Sikkim. The impediments are gauged with the help of research conducted in the project. The research is conducted using both the doctrinal and non-doctrinal method. After analysing various primary and secondary sources including laws, digital directives, research reports, policy papers, government websites applications, e-applications, their working, merits and demerits the report has been generated. The report also includes input from field surveys and interviews conducted with various department heads such as the 'Information Technology Department' of Sikkim etc. The surveys were conducted on people of different age groups which includes 'college-going students' of different age groups and senior people of age group between 30-40. The methodology utilised was the snowball sampling methodology. The interviews were to examine the problems in bringing new projects and issues of implementation which helped us to conclude this paper.

Citizen - centricity and Governance

To involve citizens in the process of governance, the services must be developed with a focus on citizen- centricity. To provide citizen's centric services, the services should be designed with the objective of protecting the interest of citizens and this requires proper planning & scheming of services in accordance with the aspirations and needs of people. The rate of success of these services depends upon the successful implementation of services that needs efficacious identification of the necessities and requirements which at times varies from person to person, group to group, community to community and even place to place. It is thus important to learn the different needs of people and thereafter provide the most appropriate services to address them. A service

¹¹Shreyasi Ghosh, The Essence of E-Governance in the Modern Era of Indian Public Administration Today, 4 SOCRATES: AN INTERNATIONAL, 110, 117 (2016).

¹²Nidhi Saxena & Veer Mayank, supra note 3, at 53

¹³Ryan Peterson, Crafting Information Technology Governance, 21 INFORMATION SYSTEMS MANAGEMENT, 7, 21. (2004).

¹⁴REHEMA BAGUMA, AFFORDABLE E-GOVERNANCE USING FREE AND OPEN SOURCE SOFTWARE, in MEASURING COMPUTING RESEARCH EXCELLENCE AND VITALITY, 201 (Ddembe Williams & Venansius Baryamureeba eds.,2006).

when launched without taking into consideration the needs may have a strong possibility of failure. Citizen-centricity lies in identifying and measuring the requirements of the citizens and to providing services accordingly with consistency which means providing the quality services and taking measures to improve the quality of such services according to these changing requirements. E-Governance with key feature of responsibility, transparency, and accountability etc. have potential to improve the quality of human life and thereby the level of their satisfaction¹⁵ with the services so designed with the citizen's perspective as a focus on operation and other similar imperative. An absence of citizen-centricity may not result in desired implementation of e-Governance projects.

The government dreamt of "deliberative democracy"¹⁶ and then designed services for its citizens to make them participate in the process of policy making¹⁷ which affects the people at large spearheading the launch of the Digital India Plan.¹⁸ Many online schemes were launched by the government at the central level under plan.

The information revolution has impacted the system of governance at global level. The unseen and unrealised potential was felt at global level wherefore to legalise electronic communication in all the spheres of life in particular in global business, the UNCITRAL Model Law on Electronic Commerce was adopted by the United Nations Commission in 1996¹⁹. Many countries adopted the provisions or they enacted their laws with slight modifications to legalise electronic communications. India too introduced its first law to govern electronic technology accordingly Information technology Act came into existence followed by many legislative and administrative steps to make India electronically empowered. The next section will discuss these legislative initiatives in India.

Indian Legal Storyline

Based on the model law on electronic commerce of 1996,²⁰ India enacted the Information Technology Act 2000. The Act came into existence with an objective of establishing a paperless system of e-Commerce as well as to legalise electronic communication systems in India.²¹ Participatory democracy requires accountability and transparency. For the purpose of being more transparent and accountable, it required allowing citizens to ask the authorities any information relating to governance, the parliament enacted the Right to Information Act, 2005²² and thereby encouraged the

¹⁵Vinay Singh & Garima Singh, Citizen centric assessment framework for e-governance services quality, 27 INTERNATIONAL JOURNAL OF BUSINESS INFORMATION SYSTEMS, 1 (2018).

¹⁶NANCY CHARLOTTE ROBERTS, THE AGE OF DIRECT CITIZEN PARTICIPATION, vi (M.E. Sharpe. 2008).

¹⁷Dhanraj A Patil, Democracy in the age of Robocracy: Exploring scenarios for future democratic participation in the era of Digital India. 4 RESEARCH REVIEW INTERNATIONAL JOURNAL 231, 232 (2019).

¹⁸Ministry of Electronics & Information Technology, Digital India, Ministry of Electronics & Information Technology(2020),<https://csc.gov.in/digitalIndia>.

¹⁹United Nations Commission on International Trade Law, UNCITRAL Model Law on Electronic Commerce with Guide to Enactment 1996 with additional article 5 bis as adopted in 1998 (Vienna: United Nations, 1999).

²⁰Id.

²¹Information Technology Act. Preamble

²²Right to Information Act. Preamble



citizen's participation in democracy. The Act secured a statutory right to all citizens to ask information from a public authority on the matter of governance.²³ This right can be exercised in online mode too since an online channel to speed up collection of information on the system of governance has been created by the government of India. The government has also placed various policies to use and utilise the benefits associated with cyberspace, internet, and social media platforms. Amongst others there is a policy framework that emphasises upon the use of social media platforms by the government organisations to provide information about all the schemes and initiatives of the government.²⁴ The framework guides on how to utilise the social media platform with optimisation and to be in touch directly with the citizens. The launching of this framework was influenced and guided by the increasing presence of common man on social media platforms such as Facebook etc. Another framework is designed with a focus on citizen engagement in various e-Governance initiatives.²⁵

The government also introduced 'Saaransh - A compendium of Mission Mode Projects under NeGP'²⁶ to make various electronic services available to citizens of India. Since the date of Saaransh many 'Mission Mode' projects have been launched by the government. "The National Information Technology Policy 2012"²⁷ was created for bridging the technological gaps and coordinated measures between the governments. The policy aimed to fully utilise the potential of technology in government schemes. The Policy Guidelines for Empanelment/Engagement of Social Media Platforms with Bureau of Outreach and Communication²⁸ focuses to spread information about various schemes of government within a short span of time. All these policy directives aimed at making India an economy that has adapted itself to the digital highway and is attempting to bring digital governance to the doorsteps of all. These policy directives guided the launch of many e-Governance initiatives at national and state levels. Some of these initiatives couldn't last for long, some worked initially but later shut down by the

²³Id. at. Sec. 3

²⁴Department of Electronics and Information Technology, Framework & Guidelines for Use of Social Media for Government Organisations, Department of Electronics and Information Technology Ministry of Communications & Information Technology Government of India(2012),<https://www.meity.gov.in/writereaddata/files/Social%20Media%20Framework%20and%20Guidelines.pdf>. (Last visited on 20-01-2022)

²⁵Department of Electronics and Information Technology, Framework for Citizen Engagement in e-Governance, Department of Electronics & Information Technology Ministry of Communications & Information Technology Government. (Last visited on 20-01-2022)
of India(2012),
<https://www.meity.gov.in/writereaddata/files/Framework%20for%20Citizen%20Engagement%20in%20NeGP.pdf>.

²⁶Department of Electronics and Information Technology, Saaransh - A compendium of Mission Mode Projects under NeGP, Department of Electronics and Information Technology(2011),
[https://www.meity.gov.in/writereaddata/files/Compendium_FINAL_Version_220211\(1\).pdf](https://www.meity.gov.in/writereaddata/files/Compendium_FINAL_Version_220211(1).pdf). (Last visited on 20-01-2022)

²⁷Department of Electronics and Information Technology, National Policy on Information Technology, 2012, Department of Electronics and Information Technology(2012),
https://www.meity.gov.in/writereaddata/files/National_20IT_20Policyt%20_20.pdf. (Last visited on 20-01-2022)

²⁸Government of India Ministry of Information and Broadcasting Bureau of Outreach and Communication, Policy Guidelines for Empanelment/Engagement of Social Media Platforms with Bureau of Outreach and Communication., Government of India, Ministry of Information and Broadcasting, Bureau of Outreach and Communication(2020), <http://www.davp.nic.in/writereaddata/announce/Adv12171352020.pdf>.

government whereas, some are successfully operating. This whole legislative and policy efforts coupled with the launch of electronic governance initiatives opened the door for evaluation of their success and failures. The next section analyzes these very initiatives first at central level then at state level. Since the paper focuses on the success of these initiatives in Sikkim, the paper will analyse the e-Governance policies promoted in Sikkim by the Union and/or the State and will suggest the appropriate recommendations.

Electronic Initiatives at Centre Level

The government at central level launched the 'Digital India Plan'²⁹ with an aim to revolutionise the system of public services by making them available in electronic form or through electronic means and mode.³⁰ For making India a digitally equipped and empowered country, under the 'Digital India Plan',³¹ The central government introduced the National e-Governance Plan (NeGP) with 31 Mission Mode projects (MMP) in the year 2006 with a multi-pronged strategy.³² The project aims to reach rural India with the help of the internet. Various schemes like BharatNet,³³ Make in India,³⁴ Start up India,³⁵ Industrial Corridors,³⁶ Bharatmala,³⁷ Sagarmala,³⁸ dedicated freight corridors³⁹ and UDAN-RCS⁴⁰ etc. have been brought into existence. Digital India envisioned the digitally empowered India.⁴¹ Several 'National e-Governance Plan (NeGP)' plans too were

²⁹Ministry of Electronics & Information Technology, About Digital India, Ministry of Electronics & Information Technology, Government Of India (2020), <https://www.digitalindia.gov.in/> (Last visited on 20-01-2022)

³⁰Id.

³¹Ministry of Electronics & Information Technology, supra note 30

³²Vikaspedia, National e-Governance Plan, Ministry of Electronics and Information Technology (MeitY)(2021), <https://vikaspedia.in/e-governance/national-e-governance-plan/national-e-governance-plan-negp>. (Last visited on 20-01-2022)

³³Ministry of Electronics and Information Technology (MeitY) & Government of India, Bharat Net, Ministry of Electronics and Information Technology (MeitY) Government of India(2021), <https://vikaspedia.in/e-governance/digital-india/national-optical-fibre-network-nofn>. (Last visited on 20-01-2022)

³⁴The Department for Promotion of Industry and Internal Trade (DPIIT), About Us, The Department for Promotion of Industry and Internal Trade (DPIIT)(ND), <https://www.makeinindia.com/about>.

³⁵The Department for Promotion of Industry and Internal Trade, About Startup Portal, The Department for Promotion of Industry and Internal Trade(ND), https://www.startupindia.gov.in/content/sih/en/about_startup_portal.html. (Last visited on 20-01-2022)

³⁶The Department for Promotion of Industry and Internal Trade, Industrial Corridors, The Department for Promotion of Industry and Internal Trade, Ministry of Commerce and Industry(2021), <https://www.indiafilings.com/learn/industrial-corridor-projects-of-india/>. (Last visited on 20-01-2022)

³⁷National Informatics Centre (NIC), et al., Bharatmala Pariyojana - A Stepping Stone towards New India, National Informatics Centre (NIC), Ministry of Electronics & Information Technology, Government of India.(2018), <https://www.india.gov.in/spotlight/bharatmala-pariyojana-stepping-stone-towards-new-india>. (Last visited on 20-03-2022)

³⁸Ministry of Ports, et al., Concept & Objectives, National Informatics Centre(NIC)(2019), <http://sagarmala.gov.in/>.

³⁹The Ministry of Railways, Dedicated Freight Corridor Project, The Ministry of Railways(2021),<https://www.railway-technology.com/projects/dedicatedrailfreight/>.. (Last visited on 22-01-2022)

⁴⁰Airports Authority of India,Regional Connectivity Scheme - UDAN, Airports Authority of India (2021), <https://www.aai.aero/en/rcsudan>. (Last visited on 20-01-2022)

⁴¹National Informatics Centre (NIC), Digital India – A Programme to Transform India into Digital Empowered Society and Knowledge Economy, PRESS INFORMATION BUREAU. GOVERNMENT OF INDIA.



launched by the Government of India such as e-Kranti.⁴² Launched in 2006 e-Kranti⁴³ aims to reach electronically to the citizen by the unification of many online provisions of services and by harmonising other mission mode projects. Another application the 'Open Application Program Interface (API)⁴⁴ was launched with an objective to open multiple digitised channels of delivery of services for the public. API made services available on mobile phones, websites etc. without much effort.

Targeting the needs of old aged pensioners of central and state government employees, the government launched a biometric based initiative Jeevan Pramaan.⁴⁵ This digital scheme was aimed to make 'acquisition and submission' of Digital Life Certificates (DLC)⁴⁶ easy and convenient. Thus, extra running, helter-skelter or painful long queuing at old age was handled electronically through this initiative. A scheme was also launched by the government to realise the dream of paperless governance, the DigiLocker.⁴⁷ DigiLocker⁴⁸ provides digital storage for the electronic storage of documents in a national database that can be accessed from anywhere and at any time on an internet connection. The DigiLocker in collaboration with many institution are making documents available directly from the issuing authority and mitigating the possibilities of fabrication of documents, forgery and nonetheless corruption. Thus, with good storage capacity, the DigiLocker promotes the usage of providing digital documents.

To strengthen the district administration with simplified, transparent and convenient services at district & sub-district level the e-District⁴⁹ Mission Mode Projects (MMP) were launched. These services were launched to leverage the electronic infrastructure that was developed for the projects namely the 'State Wide Area Network (SWAN),⁵⁰ State

(Aug. 14, 2014, 20:57 IST),

<https://pib.gov.in/newsite/printrelease.aspx?relid=108926#:~:text=This%20programme%20has%20been%20envisaged,the%20current%20year%20till%202018.>

⁴²Ministry of Electronics & Information Technology & Government of India, eKranti, Ministry of Electronics & Information Technology, Government of India(ND), <https://www.digitalindia.gov.in/content/ekranti>. (Last visited on 20-01-2022).

⁴³Id.

⁴⁴Ministry of Communications & Information Technology & Department of Electronics and Information Technology, Policy on Open Application Programming Interfaces (APIs) for Government of India, DEPARTMENT OF ELECTRONICS AND INFORMATION TECHNOLOGY, Ministry of Communications & Information Technology, Department of Electronics and Information Technology, (2015).

<https://www.meity.gov.in/writereaddata/files/Policy%20for%20API%20for%20GoI.pdf>

⁴⁵The National Portal of India, Jeevan Pramaan, The National Portal of India(2020), <https://jeevanpramaan.gov.in/>. (Last visited on 20-01-2022)

⁴⁶Jeevan Pramaan, Digital Life Certificate for Pensioners, Jeevan Pramaan.(2021), <https://jeevanpramaan.gov.in/#about>. (Last visited on 20-01-2022)

⁴⁷Digital India Corporation(DIC), et al., How It Works?, Digital India Corporation(DIC)National eGovernance Division (NeGD)Ministry of Electronics & IT (MeitY) Government of India (ND), <https://digilocker.gov.in>. (Last visited on 20-01-2022)

⁴⁸Id.

⁴⁹Ministry of Electronics and Information Technology (MeitY), E-Districts, Ministry of Electronics and Information Technology (2020), <https://vikaspedia.in/e-governance/national-e-governance-plan/mission-mode-projects/e-district-mission-mode-project>. (Last visited on 20-01-2022)

⁵⁰Ministry of Electronics & Information Technology & Government of India, State Wide Area Network (SWAN), Ministry of Electronics & Information Technology, Government of India(2016),

Data Centre (SDC),⁵¹ State Service Delivery Gateway (SSDG)⁵² & Common Services Centres (CSCs).

The financial irregularities have also been addressed at centre level through the electronic and digital medium and as a single dashboard to provide information about electronic transaction thus e-Taal - Electronic Transaction Aggregation and Analysis Layer⁵³ was launched. Further to make payments and collections of money easy, Bharat Interface for Money (BHIM)⁵⁴ service was set in motion. Application 'BHIM' is based on the Unified Payments Interface (UPI).⁵⁵ Public Finance Management Scheme (PFMS)⁵⁶ which is mandated for all 'central sector schemes'⁵⁷ provides monitoring of the capital flow to beneficiaries wherein the beneficiary of different government welfare schemes can check all the details by accessing the website.

The centre also introduced many schemes keeping in mind the need of increasing communications with its people. The app/site MyGov⁵⁸ provides a platform for interacting with the government. The application gives an opportunity to people to participate in the policy making process. Another initiative was also taken by the government to launch an umbrella application to provide a single platform to access electronic services that are offered by various governmental, private and semi-private entities that have been boarded on the platform. This is known as Unified Mobile Application for New- Age Governance (UMANG).⁵⁹

National Scholarships Portal,⁶⁰ as the Mission Mode Project under NeGP is launched to offer various student related services electronically at one platform which includes online students' applications and allied services, sanction and disbursal of various scholarships etc. The government launched many initiatives at centre level to implement a system of electronic governance such as national identity document

<https://www.meity.gov.in/content/state-wide-area-network-swan>. . (Last visited on 20-01-2022)

⁵¹Ministry of Electronics & Information Technology & Government of India, State Data Centre, Ministry of Electronics & Information Technology, Government of India(2017), <https://www.meity.gov.in/content/state-data-centre>. . (Last visited on 20-01-2022)

⁵²Ministry of Electronics & Information Technology & Government of India, SSDG, Ministry of Electronics & Information Technology, Government of India (2016), <https://www.meity.gov.in/content/ssdg>. . (Last visited on 20-01-2022)

⁵³Ministry of Electronics & Information Technology & Government of India, eTaal, Ministry of Electronics & Information Technology, Government of India(2017), <https://www.meity.gov.in/etaal>.

⁵⁴National Payments Corporation of India (NPCI), Home / Who We Are, NATIONAL PAYMENTS CORPORATION OF INDIA (NPCI) (2022), <https://www.npci.org.in/who-we-are/about-us>

⁵⁵National Payments Corporation of India, Unified Payments Interface (UPI), NATIONAL PAYMENTS CORPORATION OF INDIA (NPCI) (2022). <https://www.npci.org.in/what-we-do/upi/product-overview>

⁵⁶d.

⁵⁷Public Finance Management Scheme (PFMS), et al., About PFMS, Public Finance Management Scheme(PFMS) Office of Controller General of Accounts, Ministry of Finance(2017),<https://pfms.nic.in/static/NewLayoutCommonContent.aspx?RequestPageName=Static/Implementation.aspx>. . (Last visited on 20-01-2020)

⁵⁸MyGov National Informatics Centre, Ministry of Electronics & Information Technology, Government of India, Government of India, Ministry of Electronics & Information Technology, Government of India, (2014), <https://www.mygov.in/>. (Last visited on 10-05-2020)

⁵⁹Government of India MeitY, About UMANG, Ministry of Electronics & Information Technology, Government of India (ND), <https://web.umang.gov.in/landing>(Last visited on 10-05-2020)

⁶⁰National Scholarship Portal, About Us, Ministry of Electronics & Information Technology, Government of India (2018), <https://scholarships.gov.in/>(Last visited on 10-05-2020)



Aadhaar.⁶¹ A long list of digital India initiatives is available on the government website. The state was also asked to implement certain e-Governance initiatives separately. Likewise, Sikkim introduced and implemented various Digital India initiatives as well as many initiatives at state level.

The e-Governance Model of the State of Sikkim

The e-Governance Model of the State of Sikkim places responsibility on the shoulders of the Department of Information Technology.⁶² The department was established to bring digitization in the system of governance by computerising the departments which not only generate the job opportunities but enhance the performances of various departments. The 'Sikkim State Portal' and 'State Service Delivery Gateway Portal' are the online sources of information for the various services offered by the department. The state provides various electronic services such as e-District with a single window setup. This project was conceptualised on 9th July 2016 in the east district of Sikkim for strengthening the district administration to deliver government services. The services offered under the project include application for getting various certificates such as 'certificate of senior citizen'; 'property possession/ownership certificate'; 'income certificate'; schedule tribe, schedule caste and OBC certificates, etc. In the e-District project, an applicant can apply online and once the physical verification of the document is over, the applicant will get the certificate. However, since the services offered are not completely online or in digital mode, it discourages public participation.

Another initiative is the commencement of Community Information Centres (CIC)/ Common Service Centres (CSC). As a part of infrastructure building, to tackle the problem of communication, 'Community Information Centers' was launched by the Government of India in September 2001 with the forty CICs, established within Sikkim initially. An additional five more such centres were added a little late which made it forty-five. The working of Community Information Centres (CIC) are monitored by the Department of Information Technology in Sikkim with the assistance of National Information Centre (NIC). In 2006, the CICs became Common Service Centres (CSC) when the Government of India stopped the funding of CIC, which are now supervised by the 'Department of Information Technology in Sikkim'. These Common Service Centres assist all state departments by channelizing the services to them.

The 'State Portal', 'State Service Delivery Gateway' & 'State Service Portal' projects started in 2013 under the National e-Governance Plan (NeGP) as a result of computerization of the departments. The online state portal contains information about the services offered by the government of Sikkim under its various departments. The State Portal and State Service Delivery Gateway offers 41 services offered by 9 State departments such as animal husbandry, labour department, rural management, agriculture, Urban Dev and Housing Dept etc.

As another valued initiative the "Department of Energy and Power" digitalized the system of electricity bill payment. The scholarship schemes were also digitised by the

⁶¹Id.

⁶²Department of Information Technology, & Government of Sikkim, Information Technology Department, Department of Information Technology, & Government of Sikkim (ND), <https://sikkim.gov.in/departments/information-technology-department>(Last visited on 10-05-2020)

Sikkim government; to enable the students to apply online for various scholarships. The students of ST, SC, OBC (of Central & State List) and minority can avail these scholarships. The scholarship schemes work through two steps and each step is regulated differently. The two governments- the central government regulates at the registration level while physical verification is done by the state government under the authority of the department of social justice empowerment and welfare. The government is continuously putting efforts to implement the existing scheme launched by the centre and the state but is facing hardship. The next section of this research paper throws some light on various implementation challenges of e-Governance in the state of Sikkim.

Implementation Challenges in Sikkim and Probable Solutions

The research found the following challenges in implementation of e-Governance projects and initiation and development of new projects and schemes.

The hilly terrain of Sikkim is prone to landslides. The weather conditions, which includes heavy rainfall during the monsoon season, disturbs the roadways of Sikkim and makes the state 'cut off' from mainland India. The landslides and heavy rainfall sometimes disturb the connectivity ultimately resulting in failure to implement citizen-centric services in the locale/ region. Further, the telecommunication services in Sikkim used by everyone including various Departments of Sikkim governments for connectivity (internet also) is of the 'Bharat Sanchar Nigam Limited' of West Bengal circle. Absence of any telecommunication circle of its own renders the connectivity poor and implementation of various initiatives very challenging. Further the telecommunication services to the State of Sikkim are provided through the 'Fibre Optics Network Cables' while the telecommunications authorities are based in West Bengal. Hilly terrain and climatic conditions of Sikkim like landslides etc. augments the damage and delays repairment of the cable which further complicates the situation in case of any major defect as it lacks local control of authorities. This ultimately leads to the complete shutdown of delivery of services electronically together with the collapse in the inter-connectivity of departments, thereby discouraging the people to choose e-Services. Even sometimes internet speed places constraints in implementation. Poor network connectivity affects quality of services in some districts as in the rural areas of Sikkim it is extremely poor.

The Internet is essential for offering electronic services and internet users are potential customers to avail them. The offering of e-Services includes fulfilling the requirement of uninterrupted and continuous connectivity to stimulate participation eventually. Since the major challenge in Sikkim is the internet connectivity on which the success of electronic services depends, regularisation of connectivity particularly in urban and suburban areas of Sikkim where a major chunk of internet users with technical knowledge to avail such services connections reside. In addition, revival of CIC/CSC's may increase the possibility of successful implementation of such services.

Sikkim has a literacy rate 82.6 percent which is quite high in comparison of many other states in India, yet people due to low digital literacy are mostly unaware about various services or schemes of e-Governance, its modalities, who can avail them and similar information related to services. Moreover, people are not very tech savvy, their age factor or technological understanding discourages them from using such e-Services.



Government can launch digital training for them about how to use tech gadgets, access government web-sites to avail services and use mobile applications. These trained individuals should be used for providing training to the next batch and can be the part of training institutes etc. The increased digital literacy, trained volunteers, integrated departments and citizen-centric services offered by the Sikkim IT department will play a phenomenal role in ensuring participation. Further an emphasis on the use of various ICT devices/ modes must be made by the state. Technology attracts youth very much. They are ready to do experiments, learn many new things which is very vital for e-Governance implementations. Therefore, this potential of youth could be used for successful establishment of e-Governance in the State.

Further, most services follow a procedure of two steps verification, from online applications to offline/physical verification which is not only time-consuming but complicated too. An Aadhar linked online service not only saves the time of the applicant but also eases the process of verification because no individual can obtain multiple Aadhaar numbers. The biometrics enabled Aadhar linking will definitely put a check on false claims. Thus, linking Aadhaar with services or schemes offered by the government will save the public's precious time, increase efficiencies and reduce the issues of corruption. This will enhance the trust in electronic services which is a major challenge for implementing e-Governance service and an inordinate hurdle to achieve the goal of a paperless economy. Nonetheless, the state should mandatorily focus in complete shift towards e-Governance by reducing the paper documentation as is required in some services. The emphasis should be on efficient delivery of electronic services like if it is certificate it should be digitally signed and made available on the DigiLocker portal and accessible to the holder as when needed.

In Sikkim, the rural population is high in comparison to urban population. Thus, a lot of people are unaware about various services launched by the government. Further hilly terrain disconnects people staying in villages from the mainland, which aggravates during rainy seasons. Managing medical needs, medical emergencies become a challenge. Thus, if the government launches e-Governance initiatives/applications it will be beneficial for the people staying in such a distant place. These applications can be launched for calling a taxi or consulting a doctor for small medical issues. Trained medical persons based on location can attend them.

These issues need to be taken care of by the government to make e-Governance a success in Sikkim.

Conclusions

It is very evident that e-Governance initiatives in Sikkim are facing issues of connectivity. This connectivity failure de-motivates people to utilise and avail various online services. Sikkim is facing issues of internet connectivity due to several reasons ranging from disruption in telecom services to weather conditions, from digital literacy to awareness. These issues are not just on the part of people, even departments offering services face issues in offering and implementing online services. Poor internet performances besides obstructing the horizontal flow of communication between state departments discourage people to avail them.

It is an accepted fact that in any participatory democracy people are back bone and therefore their role is of significant importance. The technological advancement in

information and communication has brought a paradigm shift in the system of governance and paved the way to become an inalienable part of democracy. The omnipresent technology provides a platform and opportunity to the people to participate in the system of governance.

Past few years have seen enormous progress around the world and many countries have already implemented the electronic form of government. The technology due to its accessibility is bringing people closer to each other and towards the government. This has enabled economic growth rates that were earlier unfathomable. This eventually lifted people out of poverty. The increased rows have also led to rising inequality, both within and across the country and to greater vulnerability to the people not familiar with the new technology trends. Although burgeoning new tech gadgets, technology revolutions, and newly-fangled ideas to use the same have helped many 'States' and people move forward, some 'States' or some parts of the 'States' appear to have been left behind. They are still facing trouble in adoption and acceptance of the new tech trends and this leads to limited opportunities for advancement.

Digital India plan provides services in electronic form for availing these services. People need tech gadgets and devices for accessing services available online. Indians are not economically rich; people here live below the poverty line and thus cannot afford costly tech gadgets. Thus, providing devices on subsidised rates with tutorials on how to use them will increase the most needed people participation. And people when finding electronic gadgets at an affordable price will come forward to become part of electronic governance. In addition, the law on e-Governance in India is legislated but there is absence of mandatory provision to implement the same in the government departments. It is therefore suggested that the law may be amended in this light and it should be made compulsory for the government departments to implement e-governance protocols.

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