

Chapter–I

Introduction

1.1 E-Governance and Rural Development: A study of two select districts of Assam.

1.2 Statement of the problem:

Transfer of information is considered as a basic requisite for determining the future activities of economic and social development of a region. Today Governments are using tools of Information & Communication Technologies (ICT) to provide various services efficiently. In last few decades ICT has provided the society a vast area of network communication capabilities e.g people can communicate with each other in different countries using technologies such as internet, messaging, voice over Internet Protocol (IP) and video conferencing. The wide spread social network websites also allow users from all over the world to remain in contact and communicate in different topics. Small towns & rural areas due to long distances, were left behind for availing such services. ICT makes it possible to reach in far away places. This creates transparency & minimizes the cost of availing the services. E-Governance minimizes the time as well as corruption while availing the services. As a result, this helps in improving the social & economic development. Various Government services can be easily provided to remote places at very low cost through computer & internet. Today this can be done in easier way by using local language software. In modern world it seems impossible to improve the social & economic life of rural people without implementing such e-Governance programmes. E-Governance not only helps in good governance, but also improves the participation of common citizen in governance & strengthening the democracy.

But before going to discuss about the e-Governance we need to go through the origin of the term “Governance”. The term ‘Governance’ derives from the ancient Greek word “kubernao” which means to steer or to control.

The World Bank’s PRSP (Poverty Reduction Strategy Paper) defines Governance as “the way where power is exercised through a country’s economic, political and social institutions”¹. It is a very important aspect of any system unless which the whole system may be collapsed. It basically see two things. Primarily it emphasizes on ‘how political power is exercised to manage a nation’s affairs’. In the second instance, the term is used in a broader sense. It looks after governance as the “use of power in the management of a country’s economic and social resources for development.

Tahir Naveed, defines governance as the management of resources, and organization of individuals and groups into formal and informal bodies and institutions and businesses, through social, political, administrative and economic mechanisms².

Governance is ultimately concerned with creating the conditions for ordered rule and collective action (Stoker, 1998; Peters and Pierre, 1998; Milward and Provan, 2000).

The Human development report 2002 of United Nations has given a new perspective to governance by terming it as democratic governance; that is essential for better human development. The democratic human rights and freedom, say in decision making, which effect their lives and holding decisions makers accountable. It attempts at making the economic and social policies more responsive to the people’s needs³.

The ICT can play a vital role in governance process. It helps in communication and information and the exchange of knowledge which are very necessary for development

process. The use of ICT in governance process can be visualised through two ways. Firstly as a tool, it helps in improvement of government; secondly, it acts as a link between the authority and public. The intervention of ICT in public domain, managed by government, is referred as electronic-Government (e-Government). It is the narrower discipline dealing with the development of online government services to the citizens and business. The ICT improves civil society participation in the governing process, which is also referred as e-Governance. E-Governance encompasses a series of necessary steps for government agencies to develop and administer as well as ensure successful implementation of e-government services to the public at large. E-Governance has a greater scope and connotation than E-Government, even though ordinarily the terms are used interchangeably (Andersen and Henriksen, 2006; Sahu, 2004).

The term e-Governance is comprised of two words “E” and “Governance”. While “E” refers to Electronic and the word “governance” stands for a system of management. e-Governance (Electronic or Digital governance) is the use of Information Technology (IT) to improve the system of governance which will in turn provides better services to the citizens. It is carried out through the Web publishing, Internet Development, Promoting citizen access use of - Email, Here are some definition of e-Governance as follows:-

The UNESCO defines e-Governance, “is the use of ICT by different actors of the society with the aim to improve their access to information and to build their capacities”. It also adds about the importance of encouraging citizen to partake in the decision-making process of government services..”

Palvia and Sharma suggest a framework for e-Government versus e-Governance. In their model, e-governance is concerned with internally focused use of ICT to manage organizational resources and administer policies and procedures.⁴

Oakley states “e-Governance to be a technology mediated service that facilitates a transformation in the relationship between government and citizen”⁵

Sharon S. Dawes Defines “e-Governance comprises the use of information and communication technologies to support public services, government administration, democratic processes and relationships among citizens, civil society, the private sector and the state.”⁶

Vein. Marche and McIver defines “e-Governance is a technology-mediated relationship between citizens and their governments from the perspective of potential electronic deliberation over civic communication, over policy evolution and in democratic expressions of citizen will”⁷.

E-governance or ‘electronic governance’ is the using of ICTs at various levels of the government and the public sector and beyond, for the purpose of enhancing governance (Bedi, Singh and Srivastava, 2001; Holmes, 2001; Okot-Uma, 2000).

Chen and Hsish adopt a definition from the United Nations; namely the use of ICT to improve the quality of services and governance⁸.

“E-Governance refers to the whole system involved in managing a society. The system includes activities not only by government organizations but also companies and voluntary organizations etc. Moreover, it features the processes and flows of governance, dimensions that

are critical to understand the context of information systems deployment and use” (Atkinson, 2003).

During the 70's, the concept of e-Governance emerged in India, focussing on the development of the in-house government applications in the areas of defence, economic monitoring, planning and the deployment of Information and technology to manage data intensive functions related to elections, census, tax administration etc. The process had been initiated with the establishment of National Informatics centre (NIC) in 1976. Since then NIC has been instrumental in steering and carries out all the e-Government and e-Governance applications in centre, state, district, block and upto the grassroot level administration. The 11th report of the 2nd administrative reforms commission, entitled “promoting e-governance”-the smart way forward” established the government's position that an expansion in e-government is necessary in India. In 2006, The National e-Governance Plan (NeGP) has been created by the Department of Electronics and Information Technology (DEITY) and Department of Administrative Reforms and Public Grievances (DARPG) which aimed at long term growth of e-Governance within the country. It is a plan of government of India through which all the government services will be available in electronic media. This section lay down the core mechanism and infrastructures for policies and implementation of projects at centre, state and grassroot level throughout the country.

Situated at the eastern most part of India, the North-East states comprises the eight states namely Arunachal Pradesh, Assam, Manipur, Nagaland, Tripura, Meghalaya, Mizoram and Sikkim. The total area of the region is about 2,55,168 sq.km which is characterised by river plains, hills and plateaus etc. The north eastern states mostly inhabited by a number of native

tribes. Each tribe has its own distinct culture, dance, music and life style. The region is ethnically and linguistically also diversified. For the years, the people of N.E region have to fight with problems like insurgency, unemployment and lack of infrastructure and communication etc. The predominantly rural nature of northeast emphasizes the need to bring about a sustainable development of the rural areas and its people, in order to cope up with other developed parts of India. Therefore, the promotion of e-Governance in North East (N.E) region is a handy task before government. By initiating the process in N.E region, The National Informatics Centre established its centre at Guwahati in 1986. Since then Assam is said to be the gateway of the Northeast and it is also known as the centre stage of e-Governance activities running in this region. NIC began setting up district units from 1990 onwards and now NIC has its district units in almost all the districts of the State. NIC has rendered many services in rural areas like – maintenance of infrastructure, wider transparency in government functions, providing information and communication technology support to the officials of the districts and local level authorities, development and implementation of all State and district level computerisation projects, monitoring district administration sponsored projects. Moreover The Panchayat & Rural Development Department has already started the process of computerization of the PRIs of Assam under database programme of the grant awarded under the 11th & 12th Finance Commission. The customized Software for maintenance of audit & accounts of the Panchayati Raj Institutions (APRISM) have already been developed, tested and found successful.⁹

The study deals with the role of e-Governance in the rural development in view of a comparative study of two selected district i.e Tinsukia and Dhemaji in particular. Since National Informatics Center (NIC) is a leading institution, which facilitates e-Governance in Assam, the various measures taken by it along with Community Information Centres (CIC), Computerised

Rural Information Systems Projects (CRISP), Common Service Centre (CSC) and their performance level in rural development sector has been discussed in the study.

1.3 Review of literature:

Developing countries are overburden of socio-economic and political problems. Most of these face political instability and other governance related problems. Introduction of e-Governance in those countries produces good governance with improved public services . Scholars like R D Pathak, Gurmeet Singh, Rakesh Bewal, Rafia Naz, RFI Smith; have depicted the status of some developing nations and e-Governance in their joint paper in 2008 titled *“e-Governance, corruption and public service delivery: A comparative study of Fiji and Ethiopia”* on JOAAG, Vol. 3. No. 1 .

Scholar Farhad Hussain in his article -*“e-Governance Initiatives in Developing Countries: Helping the Rich? Or creating opportunities for the Poor?”* (Asian Affairs, Vol 27, No 4 : 5-23, October-December, 2005) examines the current status of emerging e-Governance in Developing Countries. The study also reveals the state of governance and development in developing countries and analyses the drawbacks of e-Governance in Bangladesh. He further opined that ignoring the poor and marginalized community of people in running of e-Governancec undermine the prospect of ‘Good Governance’ in Developing countries.

Another scholar from Bangladesh, K.A.M .Morshed in his article posted on 01/04/2007; *“e-Governance: Bangladesh Perspective”* has depicted various challenges of e-Governance. He also refers the successful initiatives of Bangladesh Government.

In the modern era of information and communication technology, there is an urgent need of change of traditional relationship between the state and the citizens. Today importance is given on how governments attempt to organize themselves for the delivery of their programmes. Less concern about citizens input towards the system. In 2003, the issue is raised by Cathia Gilbert Riley, research fellow of Commonwealth Centre for e-Governance, in her article- *“The Changing Role of the Citizens in e-Governance and e-Democracy Equation”*.

Arjan de Jager and Victor van Reij swoud ; In their case study- *“E-Governance in the Developing World in Action: The Case of District Net in Uganda”* published in “The Journal of Community Informatics” Vol 4, No 2 (2008) discussed about the effective implementation of ICT programmes and e-Governance in the context developing countries .

The World Bank has specified corruption as the prime obstacles to the economic and social development. It undermines development by destroying the Rule of Law and weakening the institutional foundation on which economic growth depends. E-Governance proves to be handy tool in order to get rid of it. Scholars Iqbal, M.Sohel; Seo, Jin-Wan; discussed the issue in their study – *“Use of e-Governance as a anti-corruption tool: Korean Cases”* published in Journal of Korean Association For Regional Information Society, vol. 11.no. 2 of June 2008.

The issues of people’s participation in governmental process cannot be unde ignored. Specially in Democratic country, people’s participation is must needed. Tapio Hayhito Auli Keskien in his article *“Precondition’s of democratic e-Governance- A critical Approach”* presented at Politics of Participation-Focus on Third Sector Conference Workshop Helsinki 25-27.08.2005 laid emphasis upon institutionally organised citizen participation on the internet and the role of ICT in political action. They suggested for developing special website e.g City of

Tampere which can enhance civic participation. The new access point enables citizens to take active participation in decision making process.

Scholar Zelinna D. Pablo and Shan L. Pan, in their study “*A Multi-Disciplinary Analysis of e-Governance: Where Do We Start?*,” published in the Proceeding of the 6th Pacific Conference on Information Systems; Tokyo, Japan ,2002; have proposed a starting point for the deliberate, systematic, and holistic development of e-Governance. They analyze the multidisciplinary nature of e-Governance from six perspectives, provide a framework that facilitates the systematizing of current and future materials into an organized body of knowledge, and propose a methodology for identifying knowledge gaps and framing research issues¹⁰.

International conferences on Theory and Practice of e-Governance are held regularly since 2007 (Macau conference). The other conferences took place in Cairo (2008), Bogota (2009), Beijing(2010), Tallinn (2011), Albanny (2012), Seoul (2013), Guimaraes(2014), and Monte video(2016). India hosted the 10th edition of the conference. The prime objective of these conferences is to focus on the use of technology to transform relationships between government and citizens, business, civil society and other arms of government (Electronic Governance)¹¹. The proceeding volumes of these conferences are useful documents which help the followers a lot.

Shirin Madon in his book “*e-Governance for Development*” *A Focus on Rural India Series: Technology*”, *Work and Globalization* , Palgrave Macmillan (2009) opined that over the past few decades, there has been a rapid proliferation of e-Governance for Development projects which aimed at introducing ICTs to improve systems of governance and thereby to promote development. In this book, the author unpacks the theoretical concepts of development and

governance in order to propose an alternative conceptual framework which encourages a deeper understanding of macro and micro-level political, social and administrative processes within which e-Governance projects are implemented. The book draws on over fifteen years of research in India during which time many changes have occurred in terms of the country's development ideology, governance reform strategy and ICT deployment.

E-Governance is the effective use of ICT to improve the system of government that is in place, and thus provide better services to the Citizens. E-Governance is considered as a high priority agenda in India, as it is considered to be the only means of taking IT to the “Common Public”. Dr. Sanjay Kumar Dwevedi and Ajay Kumar Bharti in their article “*e-Governance in India– Problems and Acceptability*” published in Journal of Theoretical and Applied Information Technology, 2012; opined those Developments in e-Governance by providing opportunities to harness the power of information and communication technology (ICT) to make the business of governance inexpensive, qualitatively responsive, and truly encompassing. In this paper they discussed about the basic problems and acceptability of e-Governance in India.

Gilmore & D’Souza, in a case study on India, titled- “*Service excellence in e-Governance issues: An Indian case study*”. JOAAG, Vol. 1. No. 1 ; stressed on service excellence in e-Governance issues. Service excellence has been a long held goal for the private sector and increasingly, in the government sector for many countries. With the introduction of online services in recent years by governments around the world, the provision of excellence in e-Governance services is becoming an equally sought after goal. The measurement of e-Governance equality is addressed here with particular reference to India, a country with a

population of approximately one billion people, where a high standard of e-Governance provision can be expected to have a positive impact on a very large number of people.

E-governance institutions have a major role to play in respect to the Community as a whole. Infact these are there to serve the interest of community. Kiran Gopakumar have made an empirical study on “Akshaya Telecentre project” in Kerela and found that e-Governance institutions like ‘Telecentres’ can become socially relevant only when they provide services in accordance with the needs of the local community. The study has also shown the importance of a local intermediary in making telecentres successful. The study shows how trust between citizens and intermediaries at various levels affect the way of e-Governance services are delivered through telecentres.

In a study *“ICT for Rural Development: An Inclusive Framework for e-Governance”* Published by Computer Society of India special interest Group on E-Governance IN Jnuary 2007; Charu Malhotra, V. M. Chariar, L.K. Das, and P. V. Ilavarasan found that in indian society lack of community participation, absence of an integrated approach and non-inclusion of Traditional Knowledge Systems (TKS) in the project designs are the major obstacles. They suggest a system-based approach in the design of e-Governance projects, and brief some future directions. The proposed framework is based on participatory approach with inclusion of relevant TKS, has a bi-directional Citizen to Government (Government to Citizen and Citizen to Government) interface and a feedback mechanism. The prime goal is that rural e-Governance projects serve as means to attain good-governance for enhancing sustained rural development.

Some Indian scholars brought up the topic of e-Governance in context of Isolated Rural Areas. R.K. Khitoliya and Nitin Tanwar in their article *“e-Governance: An Aid to the*

Development of Isolated Rural Communities in Developing Countries” published in Vision Journal on July 26, 2005 refers the major problems faced by the isolated rural communities and the problems that e-Governance has the potential to solve. Beside these the various operational and infrastructure problems associated with implementing e-Governance are also discussed, along with possible solutions.

Another area related with e-readiness for e-Governance in India is also discussed by scholars and authors. Sameer Sachdeva, in his scholarly article on “*White Paper on e-Governance Strategy in India*” published in December’ 2002 thoroughly discussed the relationship and application of information, knowledge, information systems, and information and communication technologies in the process of government.

Md. Shamsul Haque (Department of Political Science, National University of Singapore) in his article “*e-Governance in India: its impacts on relations among citizens, politicians and public servants*” published in “International Review of Administrative Sciences” on Vol. 68 (2002) has analysed the initiatives of centre and state government in respect of e-Governance with reference of the states like- Andhra Pradesh, Karnataka and Kerala. He further discussed the impacts of e-Governance on relations among citizens, politicians and public servants. The author also draws his attention toward limits and Hazards of e-Governance in India.

Poonam Malik, Priyanka Dhillon , Poonam Verma in their study “*Challenges and Future Prospects for e-Governance in India*” published in International Journal of Science, Engineering and Technology Research (IJSETR), Volume 3, Issue 7, July 2014; trace the light towards the role and potential of ICT’s in good governance programs in developing countries. They also

discussed the current challenges for managing e-Government projects in India along with the initiatives of government against those.

In their article - *“Role of e-Governance Frameworks in Effective Implementation”* published in 3rd International Conference on E-Governance ICEG 2005 , Atanu Ghosh and Nitin Arora have discussed the governmental efforts in implementation of framed policies related with e-Governance in India .They have suggested to develop a framework which will set the standards and address issues ranging from infrastructure to customize it to local needs.

E-Governance development activities are full of risk and uncertainties, which require identifying the important factors that are responsible for failure of the project, such as organizational environment, team, user, requirements, complexity, planning and control¹². Scholars R.D.Choudhari, D.K.Banwet, M.P. Gupta have performed a cluster analysis titled *“Risk Profile in e-Governance Project”* published in 2007; to find out the low, medium and high level risk factors of project and thus suggested for its prevention measures.

A series of National Conferences on e-Governances are held regularly in India since 1997 with an aim to make all government services accessible to the common man in his locality, through common service delivery outlets and ensure efficiency, transparency and reliability of such services at affordable costs to realize the basic needs of the common man.¹² The proceeding book of these conferences are important source of knowledge of contemporary e-Governance mechanism running throughout the country.

In Assam several scholars have brought up the topic of e-Governance to limelight. Sri Keshabananda Borah, A Research Scholar, of Political Science department of Gauhati University; in his study *“Implementation of citizen-centric e-Governance projects in Assam”* published in IOSR Journal Of Humanities And Social Science (IOSR-JHSS), Volume 7, Issue 2 (Jan. - Feb. 2013), discussed about the centrally and state sponsored Mission mode projects along with ongoing some e-Governance initiatives in Assam . He also pointed out the significance and challenges regarding implementation of e-Governance in Assam.

The challenges towards ICT and e-Governance are also raised by various scholars of Assam. For example - Junali Deka, an research scholar of Assam University, has discussed the issue in her thesis entitled *“ICT And e-Governance its Challenges and Perspectives in Assam”*, The researcher refers that, in states like Assam; lack of access to ICT and knowledge on ICT literacy restricts the inclusive development of e-Governance while policymaker need to create proper environment to implement the same.

Part VI of *“Assam Administrative Reforms Commission 2005”* provides a number of suggestions in respect of developing proper infrastructures for smooth running of e-Governance in the state. It came up with suggestions like each government department shall have their own database, installation of LAN(Local Area Network) and WAN(Wide Area Network) in all public departments, establishment of MIS(Management Information System), developing Common software for tracking all files, file movements, grievance redressal etc; setting up of websites in different Public Agencies i.e Zilla Parisad, DRDA (District Rural Development Agency) which will be hosted by Government Agencies like NIC, AMRTON (Assam Electronics Development Corporation Limited) etc.

Though a number of study regarding e-Governance and development has been conducted at the same time it is seen that only a few tried to trace the light of Rural Sector specially the grassroot level (i.e. Block Level study) So, this study tries to fulfill in this aspect.

1.4 Significance of the study:

Though e-Governance receive, high level of popularity in rural life, governments yet have not done enough to look at how Information Technology can address the needs of the poor in general and poor women in particular, towards economic and social empowerment. Moreover Ground-level evidence reflects attention primarily to the urban-rural divide, and inadequate focus to the concerns of the illiterate, of marginal farmers, and women. That's why the question of Equity comes before implementation of every e-Governance programme. Sometime Cultural Barriers restricts the mobility of e-Governance in rural areas. A limited number of studies have been undertaken in connection with e-Governance and rural development in India and abroad. So, the investigator viewed the studies, which one is directly or indirectly related to the problem area and the investigator has taken up the study to know the role of e-governance, government and people in this respect. In view of all these points the main objectives of the study have been formulated.

1.5 Objectives of the study:

1. To find out the history and development of e-Governance in Assam.
2. To access the role of e-Governance in rural development in Assam in general

3. To find out the challenges faced by the e-Governance institutions in Assam in general and two selected districts in particular
4. To find out the efforts of some leading e-Governance institutions in promoting rural development in two selected districts in particular and Assam in general
5. To find out peoples access in the e-Governance institutions in the two selected districts in particular and in Assam in general.

1.6 Hypotheses:

- 1) E-governance renders services to diverse sectors of Rural Development .
- 2) The quality of governance is enhanced as a result of e-Governance.

1.7 Delimitation of the Study:

The present study is delimited to:

1. Tinsukia and Dhemaji district of Assam.
2. 4(four) out of 7(seven) Development Blocks from Tinsukia and 3(three) out of 5(five) Development Blocks from Dhemaji Districts of Assam.

1.8 Methodology of the study:

In order to collect random data from the target population, a self-administered questionnaire was prepared. The questionnaire used in this research contains only objective type questions. These questions were divided into two categories: (1) multiple choice questions (MCQ) addressing the social attributes of people; including age, sex, education, and financial

condition and (2) Yes/No questions that were asked to know whether the respondents were aware of the e-Governance programmes and whether they would be able to access those or not. Short multiple-choice questions (SMCQ) were included in the questionnaire in order to obtain a high response rate.

1.8.1 Sample: -There are 7(seven) Development Blocks in Tinsukia District of Assam including 88(eighty eight) Gram Panchayats (GP) under these Blocks and on the other hand there are 5(five) Development Blocks including 65(sixty five) Gram Panchayats (GP) in Dhemaji District of Assam. 28(twenty eight) Gram Panchayats from Tinsukia and 20(twenty) Gram Panchayats will be selected by the investigator for the present study.

1.8.2 Tools: - As per the nature and objectives of the study the researcher used following tools for collecting data. These are:

1. Questionnaire for government employees
(Person who are employed in Block Development Offices)
2. Questionnaire for beneficiaries
(Individuals who received the facilities offered by the Block Development office or government.)
3. Observation/Interview (with the government employees and the beneficiaries)

Altogether the researcher has surveyed 7(seven) out total 12(twelve) Block Development Offices in two District .i.e 4(four) in Tinsukia District and 3(three) in Dhemaji District. The questionnaire designed for the local government (questionnaire 1), to be filled up by the office employees and the other set of questionnaire i.e questionnaire 2(two), is to be filled up by the

beneficiaries. Responses of 28(twenty eight) office employees along with 151(one hundred fifty one) beneficiaries have been collected from the 7(seven) Block Development offices of two Districts. In addition, questionnaire-3(three) was circulated among 12(twelve) to 15(fifteen) citizen customers in each of these selected Block Development offices. Depending on the average number of beneficiaries coming to the Block Development office in a day, a period (one day or half day or a couple of hours so as to survey around 12-15 beneficiaries) was pre-determined for each Block Development office, and all beneficiaries who visited the office during this period were interviewed. This was done to avoid bias in selecting customers of a particular category (rich/poor, male/female, and young/old). Most of the respondents came from the age group of 40-50 years .The average age of the respondents was 40(fourty) years. Classifications of the respondents on the basis of their age group are as follows :

Table-1(i)

Classifications of the respondents on the basis of their age group/(office staff)

Sl no	Age Group	Numbers of employees
1	20-30	07
2	30-40	09
3	40-50	11
4	50+	-

Table-1(ii)

Classifications of the respondents on the basis of their age group/ (beneficiaries)

Sl no	Age Group	Numbers of beneficiaries
1	20-30	21
2	30-40	30
3	40-50	59
4	50+	41

The tools were developed by the researcher himself. The collected data will be analyzed and interpreted by using certain statistical techniques like percentage, measure of central tendency when required.

1.9 Chapterisation:

Chapter-I	:	Introduction
Chapter-II	:	Historical background of e-Governance
Chapter-III	:	Background of the area select for the study
Chapter-IV	:	e-Governance in rural development
Chapter-V	:	e-Governance in rural development, Government to Citizen
Chapter-VI:		Findings and conclusions

1.10 Justification of the area select for the study:

1.10.1 Demographic factor

Table-1(iii)

Demographic comparison of social categories of Tinsukia and Dhemaji

Sl.No	Contents	Assam	Dhemaji District	Tinsukia District
1	Total Population	31,205,576	686,133	1,327,929
2	Schedule Tribe population (In Percentage)	12.45%	47.44	6.17%
3	Schedule Caste population (In Percentage)	7.15%	6.44	2.83%
4	Others(General, OBC,MOBC etc) , (In Percentage)	80.40%	46.12%	91%

Source- "District Census Handbook- Tinsukia"/Dhemaji,census 2011

The data presented above table refers the status of various social categories of population in the two districts with reference to the state. It reflects that Dhemaji is tribal dominated district where ST population is almost 47.44% which is far more than state average i.e 12.45%. The schedule tribe populations found in Dhemaji are –Mishing, Bodo, Deuri, Nepali etc. On the other hand Tinsukia is dominated by mixed communities of population i.e. 91% which above than average of rest of state i.e. 80.40%. The major communities of Tinsukia are- Moran, Mottack, Ahom, Sonowal kachari, Tea Tribe, Bengali, Bihari, Marwari, Buddhist, etc.

So the researcher has selected one district from tribal dominated area i.e Dhemaji (homogeneous population) and other from mixed communities i.e Tinsukia (heterogeneous population) and thereby tries to take into account the impact of the demographic factor vis-à-vis delivery and access of benefits under the mechanism of e-Governance.

1.10.2. Employment and livelihood quality

Situated in the eastern most part of the state in the north bank of river Brahmaputra; Dhemaji has been devastated by floods and sand disposition caused disruption of road and rail communication with the rest of the country on regular basis. The Human Development Index (HDI) survey report of 2013 regarding environmental vulnerability puts Dhemaji in the 2nd spot among the 27 district of Assam. So, life and livelihood is quite difficult in the district. People are not yet get rid of the problems related to business i.e transportation, power supply, marketing facilities etc. Tourism industry is creeping up in slow speed. The economy of Dhemaji is agro based and no large scale industry is developed yet.

On the other hand, Tinsukia is located in the eastern part of Assam. It is known as the commercial centre of Assam. The district has affluent natural resources which inspires the multinational companies (e.g. The McLeod Russell India Limited, Oil India Limited, Coal India Limited , Hindustan Liver Limited etc) to set up their plants here . Near about 122 Nos. Tea Gardens¹² and 223 Nos. registered small tea growers of Tinsukia¹³ provided the boost to the economy of the district. Tinsukia produces generous amount of oranges, ginger and other citrus fruits and paddy. In recent period tourism industry is also able to make its impression. Rapid industrialization provides the scope of employment for the youths.

HDI Employment and livelihood quality rank of districts consists of employment parameters reflecting labour market situations, and income parameters reflecting the sustainability of livelihoods. Obviously, higher income indicates a fruitful livelihood while low income indicates an unsustainable livelihood.

Table- 1(iv)
Employment and livelihood quality comparision of Tinsukia and Dhemaji

Districts	Rank	Districts	Rank
Baksa	20	Kamrup	10
Borpetta	12	Kamrup (Metro)	1
Bongaigaon	5	Karbi Anglong	21
Cachar	6	Karimganj	15
Chirang	24	Kokrajhar	27
Darang	23	Lakhimpur	11
Dhemaji	25	Marigaon	26
Dhuburi	22	Nagaon	14
Dibrugarh	7	Nalbari	4
Dima Hasao	13	Sibsagar	3
Goalpara	17	Sonitpur	9
Golaghat	16	Tinsukia	8
Hailakandi	19	Udalguri	18
Jorhat	2		

Source- HDR survey report-2013

It is observed that the highest rank districts are- Kamrup (M), followed by Jorhat, Sibsagar, Nalbari, Cachar, Dibrugarh, Tinsukia etc while districts at the bottom are Kokrajhar, Marigaon, Dhemaji, Chirang, and Darrang etc. So far the study, the researcher has selected one district from the high rank i.e Tinsukia and the other from low rank i.e Dhemaji.

The researcher has selected these two districts in order to observe , if the higher or lower employment and livelihood quality index affects the delivery and access of benefits under the mechanism of e-Governance.

1.10.3 Health, education and standard of living factor

Human Development Index is a way to check well being within a country on the basis of some dimensions like health, education and standard of living etc. The higher HDI rank indicate a well being status of population while lower HDI rank indicates the opposite of its.

Table-1(v)
Comparision of health, education and standard of living of Tinsukia and Dhemaji

Districts	Health Rank	Education Rank	Living Standard Rank	HDI Rank
Baksa	26	23	21	26
Borpeta	2	9	16	6
Bongaigaon	16	13	8	14
Cachar	27	16	13	24
Chirang	4	12	17	7
Darang	8	27	23	19
Dhemaji	21	7	24	21
Dhuburi	19	26	26	23
Dibrugarh	18	5	9	15
Dima Hasao	3	14	6	3
Goalpara	7	22	14	10
Golaghat	13	8	19	16
Hailakandi	24	24	27	27
Jorhat	11	3	2	2
Kamrup	1	15	11	4
Kamrup (M)	12	1	1	1
Karbi Anglong	5	17	12	8
Karimganj	25	19	20	25
Kokrajhar	14	18	22	20
Lakhimpur	9	6	15	11
Marigaon	6	11	25	13
Nagaon	10	10	7	9
Nalbari	20	4	4	12
Sibsagar	17	2	3	5
Sonitpur	22	21	5	17
Tinsukia	23	20	10	22
Udalguri	15	25	18	18

Source- HDR survey 2013

If we compare the ranks of dimensional and human development indices of different districts of Assam it is found that both Tinsukia and Dhemaji have lower HDI rank than the other districts of Assam. According to the HDI survey 2013, Dhemaji stands in 21st position while Tinsukia stands in 22nd position

Given the relatively lower rank of the two districts in terms of socio-economic indicators, the researcher would be interested to find out how e-governance could play a role in terms of making the governance process accessible to the people, in turn contributing to the socio-economic development in the two districts based on accessibility, civic awareness transparency and accountability.

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