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e-Government Implementation in Nepal : A Challenges

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ABSTRACT-e-Government is a tool and technologies for the use of information and communication to improve and development of government activities and their transformation. In the context of Nepal e-Government Index is very low as compared to other countries. Nepal has many challenges for the implementation of e-Government system in Nepal. Low literacy, low per capita income, poor ICT infrastructure, insufficient human resources, lack of leadership and leadership's commitment and insufficient financial resources are the major constraints and challenges of e-Government implementation in Nepal. So, in this paper a conceptual frame works displayed for the effective and efficient e-Government implementation in Nepal. It may be very fruitful in the real life situation in the context of Nepal. So, this paper explores the challenges that Government agencies facing for implementation system and changing management.

Keywords:e-Government, ICTs infrastructure literacy, per capita income, human and financial resource. e-Readiness

1. Introduction:

Electronic Government (e-Government) refers to delivery of national or local Government information and services via internet or other digital means to citizens or businesses or other Governmental agencies. (Palvia and Sharm, 2007). e-Government (short for electronic Government also online Government or transformational Government) is creating a comfortable, transparent, and cheap interaction between Government and Citizens (G2C), Government and Business enterprises (G2B) and relationship between Government (G2G inter-agency relationship). Basically exists four domains of e-Government namely Governance, Information and Communication Technologies (ICTs), business process re-engineering (BPR) and e-citizens. (en.wikipedia.org/wiki/E-Government).

Nepal e-Government Vision: In general, a vision can be defined as a comprehensive concept describing image of a business success. In other words it is a future target image that Nepal wants to achieve in five years through the e-Government. Keyword generated from the workshop on vision establishment include – improvement in national income, enhancement in national competitiveness, improvement in administrative services for the people, realization of the knowledge based society, citizen-centric, transparent Government, good Governance etc.
Keywords were categorized into G2C, G2B, G2G by using critical customer requirement. The keywords have common goal of building Nepal, which is a developing country, into a developed country with higher average living standards by equipping the country with ICT and utilizing ICT as the new growth engine. In five years, all the Government agencies in Nepal would be interconnected via network and Nepal will provide citizen-centric and transparent services for its people. Through this, it will establish the knowledge-based society. Ultimately, Nepal will maximize the use of ICT to create values for individuals, organizations, includes and all other parts of society, and create synergy effect through networking. In this respect, the vision statement for the Nepal e-Government is defined as following. So, the e-Government vision is 'The Value Networking Nepal' through: citizen-centered service, transparent service, networked government and knowledge based society.

Nepal e-Government Mission: Improve the quality of people's life without any discrimination, transcending regional and racial differences, and realize socio-economic development by building a transparent Government and providing value added quality services through ICT.

2. Future Image of Nepal e-Government

According to eGMP 2006.8, the future image of Nepali e-Government, when the vision and mission for e-Government are achieved, is a Government that provides administrative services to its people through various channels, improving the convenience of the people. Within the Government, all the agencies and departments will be linked through the network to enhance efficiency in process. Through this, the Nepali Government would be able to realize a knowledge-based society.

3. Components e-Government Program

Over the past decade there have been e-Government initiatives in many countries at national state and top-to-down level. Some of them are highly successful and are implemented across the countries and some of them are not successful. Hence there is a need of taking a holistic view towards the entire e-Government initiative across the country. If Nepal wants to conduct effectively implementation of e-Government program in Nepal, there are some components which must be following for the implementation of e-Government in the country.

1. Awareness and Communication:

The success of e-Government system implementation in the country highly depends on the awareness about the program of development and implementation of e-Government. The Government of Nepal disseminates all kinds of information about the e-Government program and plans. So, a communication and awareness component is the major component for the implementation and development of e-Government System.

2. Assessment:

The Government of Nepal is investing significant part of resource in e-Government development and implementation projects. Therefore Assessment is necessary that robust assessment strategy is devised for the existing infrastructures for e-Government development and implementation. So, different type of assessment are needed to developed and implementation of e-Government system.

3. Capacity Building:

The capacity building guidelines take into account of the fact that different districts are at different levels of readiness for e-Governance and have different levels of ambition. So, the role of the capacity building team is at the program level to provide leadership and vision including policy formulation, preparing roadmaps, prioritization, preparing frameworks and guidelines, monitoring progress and capacity management.

4. Common Service Centre:

Common Service Centre (CSC) scheme is the most important face of National e-Government Program. Specific support is being provided for this scheme. The scope of support includes core components identification of CSC scheme: Frame problem agendas related with application software, legal instruments, and essential backend for CSC etc.

5. Infrastructure and Technical:

Infrastructure and Technical is the cell which provides support to the Department of Information Technology in implementing those projects and components of e-Government.

6. Monitoring & Evaluation:

The Management, Monitoring & Evaluation Unit of the Program Management Unit for National e-Government program develops a comprehensive Management Information System (MIS) at program level and track the physical and financial progress of various projects.

7. Project and Financial Appraisal:

Project and Financial Appraisal is the cell which identify resources to provide assistance in project conceptualization, development and implementation to various implementing agencies.

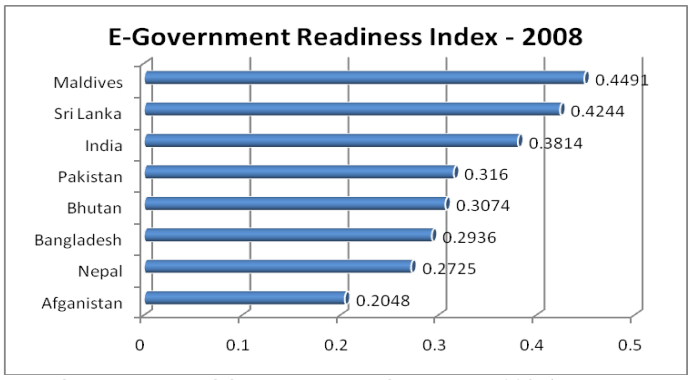
8. Research and Development:

The e-Governance Research and Development team provides consultancy and research inputs in the areas of e-Governance Technical Standards including interoperability standards e-Government Enterprise architecture frameworks, Information Security etc.

4. Nepal's Position on e-Readiness in the comparison of SAARC Region

e-Readiness is a tool to measure the capacity of a population to use ICTs by looking at how many people have the necessary skills and by identifying how they are currently used. By the help of e-readiness analysis, countries should be able to focus on the interventions needed to establish a basic platform on which e-Government initiatives will develop and evolve. So, e-Readiness is the ability to use Information and Communication Technologies (ICT) to develop one's economy and to foster one's welfare. Each year, the Economist Intelligence Unit produces a ranking of e-Readiness across countries, based on six pillars of e-Readiness: connectivity & technology infrastructure, business environment, social and cultural environment, legal environment, government policy and vision and consumer and business adoption. So, The E-Readiness Index is a tool to measure the capacity of a population to use ICTs by looking at how many people have the necessary skills and by identifying how they are currently used. South Korea is at 1st position with e-Readiness score out of 20 countries. Nepal is 150th position with e-Readiness score 0.2725. In the comparison of SAARC region countries, e-Readiness position of Nepal is 7 out of 8 countries (index is 0.2725). According to chart no. 01 the e-Readiness index of Maldives is 0.4491 holding first position in SAARC countries and Sri Lanka is in second position with 0.4244 indexes. In the comparison of 8th SAARC countries Nepal has very poor e-Readiness index because of which it may be very difficult to implement e-Government in the country.

Chart 01: E-Government Readiness Index 2008

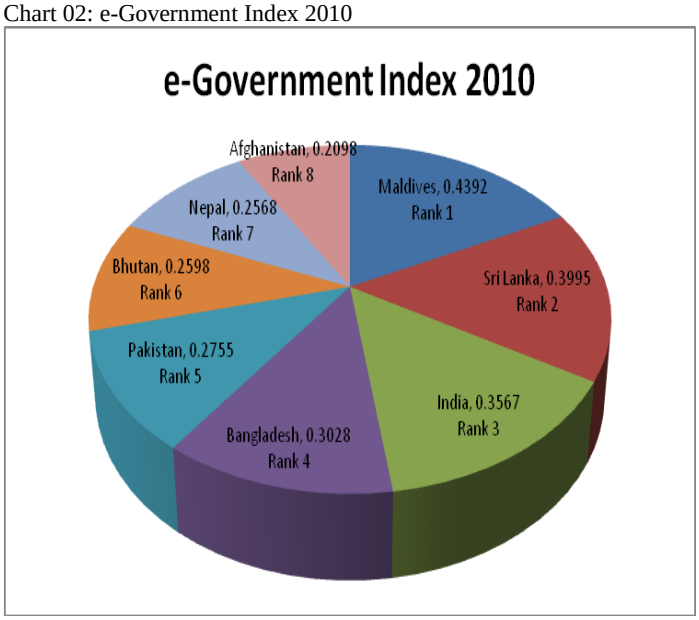


Data Source: UN E-GOVERNMENT SURVEY 2008 (Department of Economic & Social Affairs Division for Public Administration and Development Management)

5. Nepal's Position on e-Government Index in the comparison of SAARC Region

e-Government Development Index presents the state of E-Government Development of the countries. It is a composite measurement of the capacity and willingness of countries to use e-government for ICT-led development. So, e-Government Index is the measurement of e-Government Implementation. In the world ranking South Korea is at 1st position in 2010, United State is in 2nd position and Canada and United Kingdom are in 3rd and 4th positions. Nepal is in 153rd position in world ranking. In the comparison of SAARC regions Nepal is in 7th position in 2010 survey. The following pie-chart displays the condition of Nepal e-Government Implementation. The index of e-Government of Nepal is 0.2568 and Rank is 7. So, it is very poor result in SAARC countries comparison.

Chart 02: e-Government Index 2010

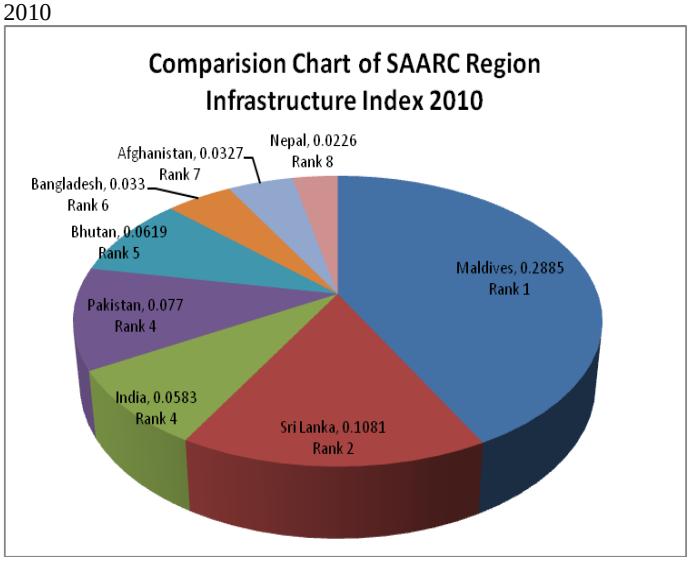


Date Source: United Nations E-Government Development Knowledge Base, http://www.unpan.org/egovkb

6. Nepal's Position on Infrastructure Index

The infrastructure aim is to build a strong, reliable infrastructure that enables the implementation of e-Government, national applications and facilitates the data exchange and connectivity between government agencies. According to United Nations E-Government Development Knowledge Base, report 2010, Nepal has very low or poor infrastructure for the development and implementation of e-Government System. The above pie-chart depicts very poor infrastructure index 0.0226 and Rank 8 in SAARC region countries. It is very poor result of Nepal in ICT infrastructure development. Maldives and Sri Lanka has achieved good result in SAARC region countries. They have maintained first and second position.

Chart 03: Comparison Chart of SAARC Region Infrastructure Index 2010



Date Source: United Nations E-Government Development Knowledge Base, http://www.unpan.org/egovkb

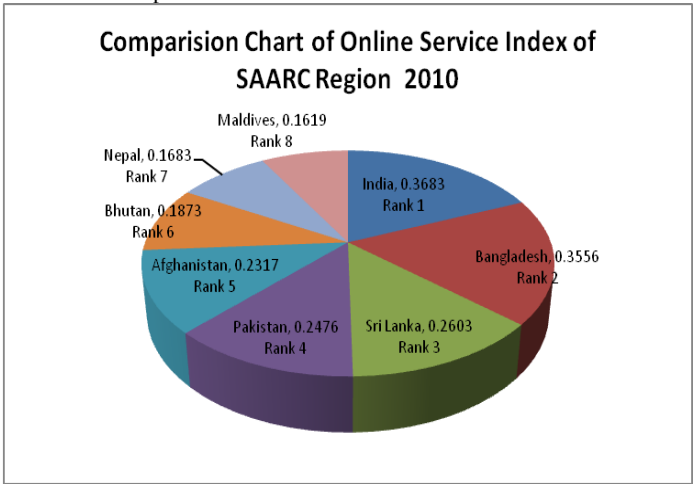
7. Nepal position on Online Service Index

A business that provides its subscribers with a wide variety of data transmitted over telecommunications lines. Online services provide an infrastructure in which subscribers can communicate with one another, either by exchanging e-mail messages or by participating in online conferences (forums). In addition, the service can connect users with an almost unlimited number of third-party information providers. Subscribers can get up-to-date stock quotes, news stories hot off the wire, articles from many magazines and journals, in fact, almost any information that has

been put in electronic form. Of course, accessing all this data carries a price.

In the comparison of SAARC region Online Service Index consists very down. The position of Nepal in SAARC region is 7th. According to UNDP Report 2010, India is successfully maintained 1st position with 0.3683 index and Bangladesh holding 2nd position with 0.3556 Index in SAARC regions' eight countries. [Data Source: United Nations E-Government Development Knowledge Base, http://www.unpan.org/egovkb]

Chart 04: Comparison Chart of Online Service Index 2010

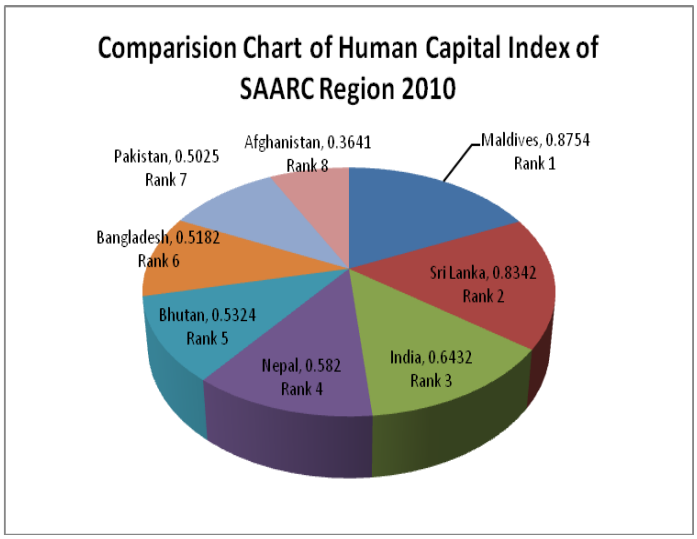


Data Source: United Nations E-Government Development Knowledge Base, http://www.unpan.org/egovkb

8. Nepal position on Human Capital Index

Human Capital Index is an index that quantifies the impact of human capital management on shareholder value.

Chart 05: Comparison Chart of Human Capital Index 2010



Data Source: United Nations E-Government Development Knowledge Base, http://www.unpan.org/egovkb

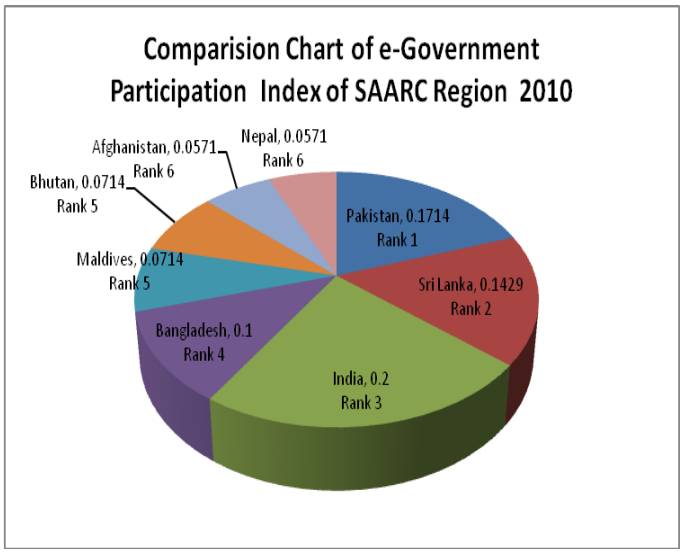
The human capital is a most important part of e-Government implementation in the country. In the context of Nepal human capital is not improved for the development and implementation of e-Government System. According to United Nations E-Government Knowledge Base Report 2010, Human Capital Index of Nepal is low. The index is 0.582 and Nepal comes up in 4th position in SAARC region countries and 153rd position in World Rank. Human Capital index is a fundamental base of e-Government development and implementation. Every kinds of development human capital plays major role.

9. Nepal position on e-Participation Index

In the context of current project, e-Participation means the use of ICT for enabling and strengthening citizen participation in democratic decision-making processes. Depending on the aspect of democracy being promoted it can employ different techniques (Trechsel et al, 2002):

1. For increasing the transparency of the political process;
2. For enhancing the direct involvement on participation of citizen;
3. For improving the quality of opinion formation by opening new spaces of information and deliberation

Chart 06: Comparison Chart of e-Government Participation 2010



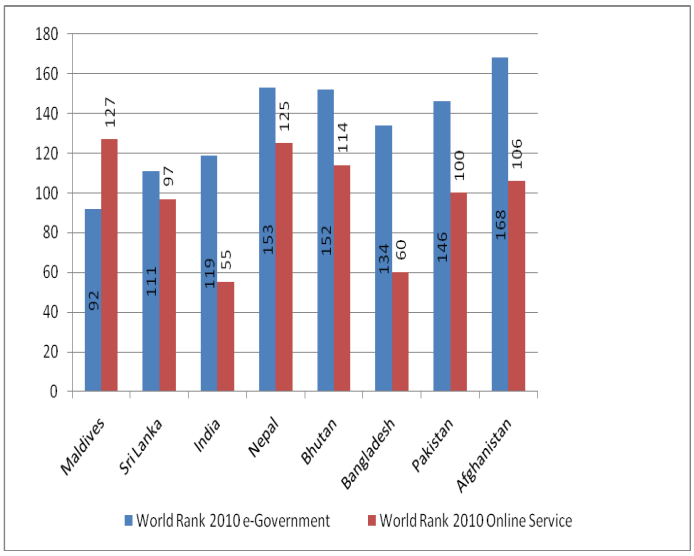
Source: UNDP Europe & CIS, Preparation of e-Participation Guide: Searching for interesting case studies and lessons learned (Word document, 60 KB).

In the context of Nepal, e-Government Participation Index also very low in the comparison between SAARC region countries. Nepal has not success to maintained good position in e-Government Participation Index. Nepal e-Government Participation Index is very low than other six countries, the index is 0.0571 and rank is 6. Pakistan maintained 1st position in SAARC region countries. So, e-Government Participation is the reason of e-Government Implementation problem. [Data Source: United Nations E-Government Development Knowledge Base, http://www.unpan.org/egovkb]

10. World Rank of e-Government and Online Service (ICT Infrastructures)

Mentioned Graph display the world rank of e-Government and online service. In the comparision of SAARC countries, Nepal's rank is very low in e-Government implementation. Nepal is in 7th position in SAARC region of egiht countries. Likewise Maldives and Srilanka maintained first and second position in SAARC region countries for the implementation of e-Government [according to UNDP report 2010]. Online Services Wrold rank, Nepal is in 125th position but in the comparision of SAARC region countries, Nepal also is in 7th position, India and Bangaladesh fall in 1st and 2nd position in SAARC region countries [Data Source: United Nations E-Government Development Knowledge Base, http://www.unpan.org/egovkb]. So, Nepal fall in very low position in Online Services also. It may be the main reason for the lack of implementation of e-Government in Nepal.

Chart 07: Worl Rank of e-Government and Online Service 2010



Data Source: United Nations E-Government Development Knowledge Base, http://www.unpan.org/egovkb

Table 01-A: ICT Distribution Situation of SAARC Countries

SAARC Countries	Total Population	Total Tele phone User	Tele phone User %	Total Internet User
Afganistan	28395716	101100	0.4	500000
Bangaladesh	156050883	1134000	0.7	556000
Bhutan	691141	27500	4.0	5000
India	1156897766	37060000	3.2	81000000
Maldives	396334	46900	11.8	71700
Nepal	28563377	595800	2.1	499000
Pakistan	174578558	7094137	4.1	1850000
Srilanka	21324791	2087000	9.8	1163500

Data Sources: M.I.S., Nepal Telecome Central Office – 2009, Nepal Doorsanchar Company Limited (ntc.omd.mis@ntc.net.np)

Table 01-B: ICT Distribution Situation of SAARC Countries

SAARC Countries	Internet User % in Population	Total Computer User	Computer User %	Total Mobile
Afganistan	1.76	110743.3	0.39	7898900
Bangaladesh	0.36	3511145	2.25	50400000
Bhutan	0.72	17347.64	2.51	251000
India	7.00	36789349	3.18	601223402
Maldives	18.09	80218	20.24	435600
Nepal	1.75	137104.2	0.48	4200000
Pakistan	1.06	768145.7	0.44	97579940
Srilanka	5.46	801812.1	3.76	11082500

Data Sources: M.I.S., Nepal Telecome Central Office – 2009, Nepal Doorsanchar Company Limited (ntc.omd.mis@ntc.net.np)

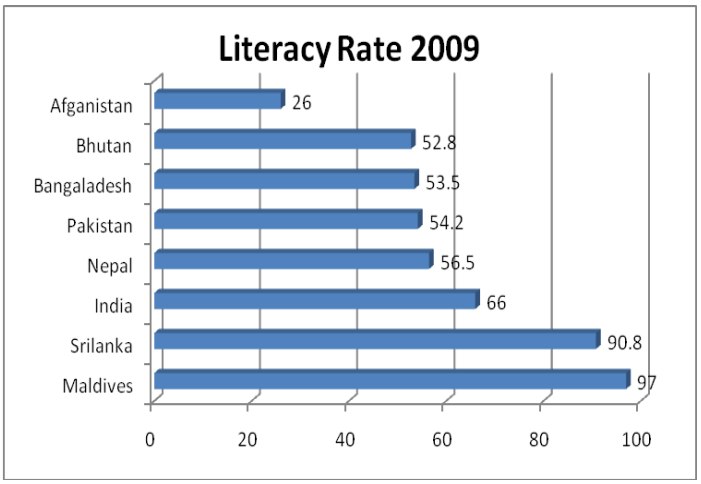
11. Challenges for Implementation of e-Government in Nepal

Implementation of e-Government is very challenging system for the development of information dissemination to citizen level. If Government have successes to provides this type of system to citizens. It will bring lots of changes in the country. Implementation of e-Government has changed the way of living of the people in many countries. If Government have successfully implemented e-Government System in the country, it can change all citizens' living standards. But in Nepal the implementation of e-Government is difficult because of its development status. So there may be the many reasons for the implementation of e-Government System in Nepal. The Government has lots of difficulties for smooth development and implementation of e-Government System in Nepal because of low literacy rate, low per capita income, poor Infrastructure, insufficient human resources, political instability, lack of leadership and commitment, limited financial resources, lack of awareness, no use of software design process. So, these all are the big challenges of e-Government Development and Implementation to the Government.

11.1 Literacy Rate of 2009

Literacy is defined as the ability to read and write with understanding in any language. It means a person who can read and write in basic is known as literacy. But a person who can only read but cannot write is not considered in literate. In IT Field, here is very low literacy. Very few people who are working in Government and Non-Government are known with IT in the country. It may the basic reasons or problems for the implementation of e-Government System in the country. So, for the implementation of e-Government System, there is an urgent need for widespread IT training for the employees on Government, Non-Government and Citizens in all over the country. In our country lots of IT training institutes and colleges are already opening. By the help of IT awareness training program can provides practical knowledge and benefits of the ICT. So, Literacy is an important and necessary step of development and implementation of e-Government. In the comparison of SAARC countries, Nepal is in fourth position with 56.5% of literacy rate. Maldives and Sri Lanka have covered first and second position with 97% and 90.8% of literacy rate.

Chart 08: Literacy Rate of SAARC Region 2009



Data Source: WIKIPEDIA The Free Encyclopedia (http://en.wikipedia.org/wiki/literacy_rates)

11.2 Low per capita income

Per Capita income is a most powerful index for development. It means 'how much each citizen received'. It is yearly income generated in the country. This is what each citizen is to receive if the yearly national income is divided equally among everyone. So, per capita income is usually reported in units of currency per year. Below mentioned table display the situation of per capita income of Nepal in the comparison of SAARC region's countries. According to Central Intelligence Agency, THE WORLD FACTBOOK – 2009, the per capita income of Nepal is very low. In the SAARC region, the rank of Nepal is 7 out of eight countries and world rank is 206. There may be the many reasons in low per capita income in Nepal. The per capita income of Nepal is US$ 1200.00. So, this is a big challenge for the development implementation of e-Government System in the country.

Table 02: Per Capita Income

Country	Per Capita Income 2009 ($)	SAARC Rank	World Rank
Bhutan	4,700.00	1	145
Sri Lanka	4,500.00	2	150
Maldives	4,300.00	3	153
India	3,100.00	4	163
Pakistan	2,500.00	5	171
Bangladesh	1,500.00	6	190
Nepal	1,200.00	7	206
Afghanistan	1,000.00	8	210

Data Source: Central Intelligence Agency, THE WORLD FACTBOOK – 2009(Publication) [http://www.cia.gov/library/publications/the-world-factbook/goes/ce.html]

11.3 Poor Infrastructure

Infrastructures are a big part of e-Government development and implementation of e-Government. Lack of technological infrastructure is a major bottleneck for countries aiming to implement and maintain e-Government. So, for the development and implementation of e-Government System, ICT is the powerful mechanism. Computer, Telephone or Internet are necessary parts of e-Government System. Without this no one can imagine e-Government. E-Government mechanism not only e-Government and it apply in over all e-Governance also. But telephone service is available in all 75 districts headquarter and some districts have cover almost all areas by communication lines (GSM mobile, CDMA mobile, PSTN telephone and Spice GSM mobile). But it is very difficulty to say "how they are distributing in the districts?". The size of population is 2.856 millions and 595800 telephones lines are distributing within the country. According to population size only telephone 2.1%, internet 1.75%, computer (PC) 0.48% and mobile 13.85% peoples (users) are using. But many of district headquarter are using fax to fax transaction system. Infrastructure specially, telecommunication power has been improving lately but is has not enough in country. Basically, telephone line (for voice communication) are available in all district headquarter but power is available only few districts of country. Available telephone lines are not sufficient for the implementation of e-Government System to Citizens level. Within this one and half year period, Government is implementing fiber optic line connections in East-West Highway of country (China and India boarder). So, poor infrastructures may be another big challenge of e-Government Implementation.

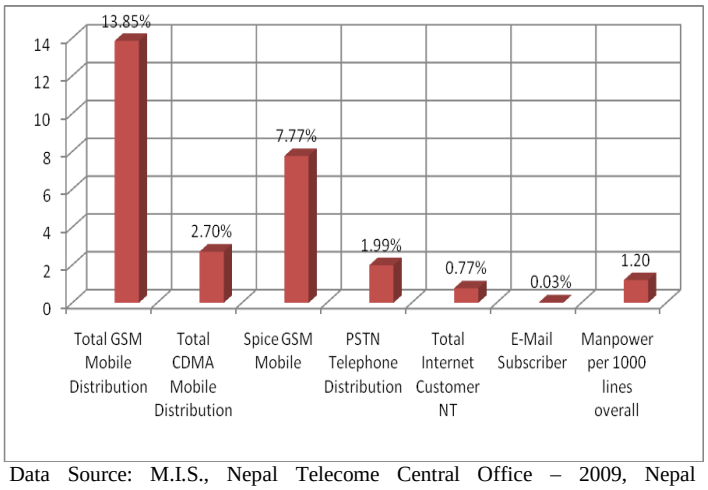


Chart 09: ICT Infrastructure Situation of Nepal

Data Source: M.I.S., Nepal Telecome Central Office – 2009, Nepal Doorsanchar Company Limited (ntc.omd.mis@ntc.net.np)

11.4 Lack of Human Resources

One of the main factors affecting the roll out of e-Government in a country is the level of human capacity. The issue of human capacity is twofold – one is refers to the skills and capacities within the public administration needed to implement e-Government projects; second is refers to the boarder community – citizens that need to possess IT literacy to fully benefits from e-Government applications. So, Human Resources play major role for the implementation of e-Government System. The Government wants to implement the e-Government System within the country. First of all, he must prepare the sufficient human resources. According to eGMP 2006 ICT human resources is very low it means insufficient for the development and implementation of e-Government. Following Table 03 shows the ICT human resources of Nepal. It is very poor. Only 0.04 % populations are academically qualified and 0.13% populations are trained in ICT sectors. According to existing ICT infrastructure, these percentages of human resources are very low. So, this may be the big challenges for the development implementation of e-Government.

Table: 03 Human Resources of Nepal

High Level Manpower	Academic Number	Trainee Number
Number of Ph. D.	10	-
Number of Master/Higher Level	400	1500
Number of Bachelor/Mid Level	3500	10000
Numbers of Intermediate/Low Level	7500	25000
Total	**11410 (0.04%)**	**36500 (0.13%)**

Data Source: e-Government Master Plan (eGMP) 2006.8

11.5 Political Instability

Political Situation must be stable for the development and implementation of e-Government System in the country. Lack of political desire can lead to slow or failure of e-Government. So, changing government in day-to-day is not a good symptoms for ITC development in the country. In this situation political situation is not stable in our country. So, each and every kind of development tasks, political stability powerful mechanisms. In this country Nepal several political parties are here. But they do not have unity and interrogation to each others. From the political reasons to many obstacles are seen in this country. Because of which Nepal is facing lots of problems in the development of Nation. So, political instability is a major challenge for the development and implementation of ICTs and e-Government System.

11.6 Lack of Leadership and Commitment/ Coordination

According to Mark Donovan Leadership commitment is demonstrated by the willingness to learn and teach the right things at the right time in the right amount. The transformation process to e-Government is quite complex and requires strong leadership. The political will, commitment to deliverables and accountability for results are among the issues that appear to have the greatest influence on e-Government progress. Leadership must have the capacity to articulate an e-Government vision, define policy goals and desired outcomes. Leader and Leadership should be able to measure e-Government initiatives by the degree to which they contribute to good governance, empowering people, raising human capabilities and increasing people's access to life choices and opportunities. So, e-Government leaders must be able to share values, build consensus, enhance strengths and capacities, preserve culture and traditions and maintain a close dialogue with stakeholders to raise awareness and communicate the progress made. So, Leadership must have commitment about the development and implementation of e-Government. Good and effective leadership can create the environment of coordination and cooperation with G2C, G2B, and G2G. In the context of Nepal, Leadership and their commitments, coordination is very poor than other countries. Because, no political stability in Nepal. Here is no powerful rule and regulation about e-Government System. So, the Lack of Leadership and their commitments/coordination are not realized by Political Leader and Other concerned individuals and offices. So, Lack of Leadership and commitment and coordination may be the big challenges in this country for the development and implementation of e-Government System.

11.7 Limited Financial Resources

The Gross Domestic Product (GDP) is one of the measures of national income and output for a given country's economy. So, GDP is defining as the total market value of all final goods and services produced within the country in a given period of time (usually a calendar year). GDP of a country is the measure of its financial strength. United States have highest GDP in the world. In the comparison of world GDP, Nepal with GDP US$ 33.66 million is at rank 101 in the World. According to below Table 03 Nepal is in 5th position in SAARC region with low financial value, it means is very limited financial resource in Nepal. So, it is very difficult to develop and implement e-Government System. To providing effective and efficient services delivery we must use all infrastructures. For the development of ICTs infrastructure for the implementation of e-Government system we should invest lots of fund. It is very difficult to manage the fund for investment. It is very challenging for fund generation. So, this is a kind of challenge of e-Government development and implementation.

Table 04: Gross Domestic Products (GDP)

Country	GDP (US$)	Unit	World Rank	SAARC Rank
India	3.57	Trillion	5	1
Pakistan	433.1	Billion	28	2
Bangladesh	241.1	Billion	49	3
Sri Lanka	96.6	Billion	69	4
Nepal	33.66	Billion	101	5
Afghanistan	27.016	Billion	110	6
Bhutan	3.257	Billion	170	7
Maldives	1.689	Billion	188	8

Data Source: Central Intelligence Agency, THE WORLF FACTBOOK –2009 (Publication) [http;//www.cia.gov/library/publications/the-world-factbook/goes/ce.html]

11.8 Lack of Awareness/Training

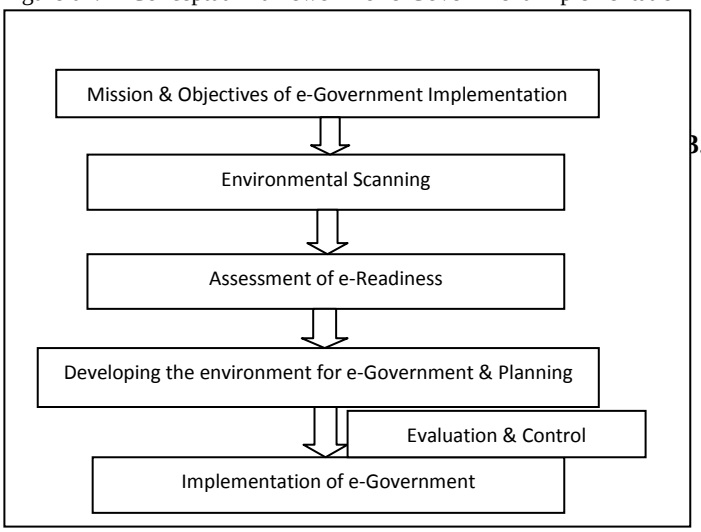
The Awareness and Training are another challenge of e-Government Implementation. Each and every kind of program that anybody wants to implement all must be aware of program and their implementation. Same as in e-Government implementation all citizens must be aware about the system and their objectives. Then only it will be successfully implemented. According to e-readiness index of Nepal there is very low index in e-Government development and implementation part because there is no aware in citizens. It is necessary to implement awareness program in citizen level about the system and their vision. Another part is training, it is crucial part of e-Government implementation because need trained manpower to implement the system. Training always leads to makes a successful implementation of e-Government. Each and every citizen and system users need a training to implement and run the system in the country. So, every citizen must have implementation knowledge about e-Government. In this regards only 0.04 % populations are academically qualified and 0.13% populations are trained in ICT sectors. It is very less trained manpower for the implementation of e-Government within the country. Again, there is no refresher training provided to existing 0.13% manpower in new or advanced technologies. Such as all citizens must known about the e-Government System. Before implementing the e-Government system in the country, it will be necessary to implement the awareness

program to citizen level. So, awareness and training component is big challenges in Nepal for the implementation of e-Government in the country.

12. Strategic Framework for Implementation of e-Government

According to Richard Heeks "An e-Government strategy is a plan for e-Government Systems and their supporting infrastructure which maximize the ability of management to achieve organizational objectives. Increasing numbers of public organizational agencies are developing an e-Government strategy". Strategic plan and framework is compulsory part of e-Government development and implementation in the country. There must be accomplishing various steps for the development and implementation of e-Government. A conceptual framework for the effective implementation of e-Government is as follows. It is divided into five steps process.

Figure 02: A Conceptual framework for e-Government implementation



Vision & Objectives of e-Government Implementation: In the first step the vision and objectives for the effective implementation of e-Government has to be determined. In this level Vision and objectives has been planned which are very useful to develop and implement of e-Government in the country.

Environmental Scanning: In this step, technical architecture and infrastructures has been develop, which can help to develop and implement the e-Government in the country.

Assessment of e-Readiness: In this step, e-Readiness should be assessed to fulfill the vision and objectives of e-Government. Again, it is compared with respect to other countries to known the position of e-Government implementation.

Developing the environment for e-Government: The positive environment needs to be develop to meet the vision and objectives of the e-Government implementation. This step provides positive environment to plan the activities and implementation planned activities for the development and implementation of e-Government. This environment is internal environment and external environment.

Implementation of e-Government: Then this is final step of conceptual framework where the e-Government should be implemented. And together with fourth and five steps evaluation and control steps also used for the e-Government that the implementation is successfully run or not. In the context of Nepal, e-Government Master Plan (eGMP) has not formulated this type of conceptual framework for the implementation of e-Government. The main reason is National e-Government Technical Architecture. It has not designated in e-Government Master Plan (eGMP) 2006. According to UN E-GOVERNMENT Readiness Survey 2009, the e-Readiness Index very low. So, the five steps process has not followed for the development and implementation of e-Government in Nepal, which is a conceptual framework for e-Government Implementation.

13. Conclusion:

According to e-Readiness Index, e-Government Index, Infrastructure Index and Infrastructure Architecture, Online Service Index, Position of Human Capital Index, Position of e-Participation Index are very low in Nepal. There are various challenges for the implementation of e-Government in Nepal. These challenges are like Low literacy rate, Low per capita income, Poor infrastructure, Lack of Human Resources, Political Instability, Lack of Leadership and Commitment/Coordination, Limited Financial Resources and Lack of Awareness/Training. So, a vision and objectives are required to implement the effective e-Government in Nepal. To meet the vision and objectives the challenges in the implementation of e-Government should be overcome. Then the environment needs to be developed for the effective implementation of e-Government in Nepal. Mentioning conceptual frameworks is developed for the effective implementation of e-Government in Nepal. For the effective delivery and fulfillments of challenges, the conceptual framework play major role. It can be further validated in the real life situation.

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