

## **MONGOLIA**

# **e-Government Key Challenges to Enhance Citizen Participation**

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## Executive Summary

The Government of Mongolia recognizes the importance of e-government in delivering public services to sparse population living in vast territory. Mongolians believe that the most effective e-government strategy is depending on input from a variety of stakeholders. Increasingly, government employees businesses, nongovernmental organizations and citizens are brought into the process of defining e-government strategies.

First, this paper reviews Mongolian e-government strategies such as “e-Mongolia” National Program, “e-government Master Plan”, “Low cost PC and Affordable Internet program” and “Open Government” from citizen participation perspectives. The studies show that existing policy documents address only central government issues. In the future more intensive actions should be done to develop local e-government. This can serve a good chance to provide hear local citizen’s voice, bridge digital divide, promote citizen’s participation.

Second, the paper identifies the e-government key challenges especially for poor and vulnerable groups in Mongolia. The findings argue that Mongolian government must seriously take into reconsideration of bridging Digital divide, Human resource development and improving citizen participation. However, channels for participation have opened for Mongolians since early 1990, through the growth of civil society, expansion of market, democracy, and info-telecommunications.

Finally, this study summarizes the result findings and suggests some policy solutions. Indeed, what lessons can Mongolia offer us about e-government policies to enhance the citizen’s participation in general? There are some well designed and formulated programs and projects. However, these programs have very little impact to enhance citizen’s participation. In the future, Government of Mongolia will provide more accessible services by community centers and ensure to facilitate inclusion vulnerable groups of Mongolian society.

There is a need of procedural and financial clarifications for e-government strategies, to identify what actions we need to take and how to prioritize our actions. We believe that the e-government can be utilized to summarize common issues in central and local community level such as poverty reduction, health and education services, environment problems and land management.

*Key words: e-Government strategy, citizen participation, digital divide.*

## 1. e-Government Strategies

Mongolia has the vast landscape, the sparse population and landlocked country. It is extremely important to use ICT as a key of development to overcome these challenges. It also is required to penetrate ICT in all sectors of society in order to develop the knowledge based industry and to establish the Information society (ICTA 2004).

A survey conducted by a Mongolian Development Gateway (2003) with a financial support of the World Bank Program of “Development Gateway Foundation” among 500 organizations, 1,300 households, and 350 persons on issues of development policy, strategies of infrastructure development, policy, legal environment, structure, and organization of information and communications sector states the lack of legal environment for those engaging in electronic works and services, electronic commerce, and banking services.

There is a need for the Government to pay particular attention in following through with appropriate approvals for policy and legal changes and with the development of appropriate regulatory framework; and to prioritize the implementation agenda. After Parliamentary Elections, Information and Communications Technology Authority (ICTA) was established in October 2004, under the direct auspices of the Prime minister of Mongolia to regulate the ICT policies, coordinate the ICT sector, which is a priority in national development.

Recently, the ICTA is developing a draft package law on Information Technology including Basic IT Law, Electronic Governance Law, Electronic Signature Law, and the Electronic Transactions Law. The needs to amendments into some important laws, especially Civil code, Banking, Taxation, Customs and Consumer Protection in force are arising in the process of formulating the draft package laws.

The drafts of this package IT law are displayed in its original and complete form on websites of the organizations such as “Open Government” (see <http://www.open-government.mn> ), “Open Society Forum” (see <http://www.forum.mn> ), and “Mongolian Development Gateway”, (see <http://www.gateway.mn> ) and “MIDAS/MONITA NGO” (see <http://www.ict.mn/midas/> ) so that readers could become acquainted with and provide their opinions.<sup>1</sup> With adoption of the package IT Law, better conditions will be provided in delivering government services to citizens and entities and promoting cooperation between central and local governments.

In October 2005, the Government of Mongolia adopted “e-Mongolia” National Program and this document formulates the mid-term (2005-2012) sector policy and the roadmap of ICT and its implementation. The “e-Mongolia” National Program is based on the concept to utilize ICT for the welfare of the people of Mongolia, and covers e-government, e-education, e-health, and e-commerce sub programs.

Currently, Government of Mongolia developed e-government master plan. Mongolians believe that the most effective e-government strategy is depending on input from a variety of stakeholders. Increasingly, government employees businesses,

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<sup>1</sup> See <http://www.opensocietyforum.mn/print.php?coid=187> – Accessed 05 January 2005.

nongovernmental organizations and citizens are brought into the process of defining e-government strategies.

In this chapter, the 3 major tasks such as (a) the development of the e-Government Master Plan, (b) the introduction of the low cost PC & Affordable Internet program and (c) Open Government Initiatives will be discussed in more detail.

**1.1. e-Government Master Plan**

The purpose of Mongolian e-government master plan is to “Develop national competitiveness and enhance quality of public services” by establishing an effective, systematic and productive e-Government.

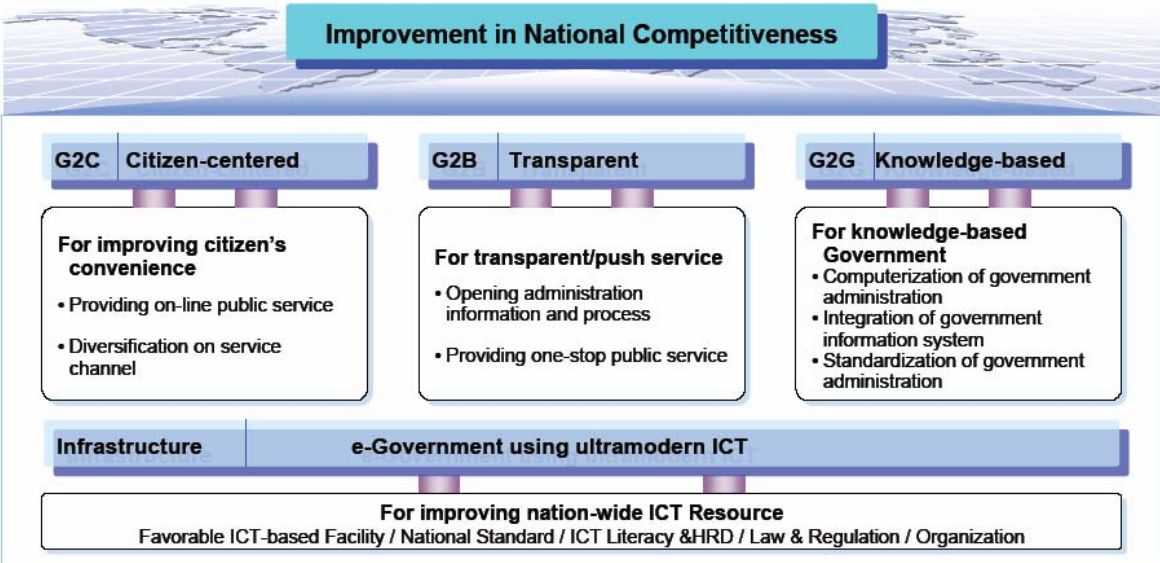


Fig.1. e-Government Vision of Mongolia

Fig 1 shows that the Mongolian e-Government should be realized for economic development, administration efficiency, and improvement in G2C/G2B/G2G services. These objectives can be achieved by providing civil servants with ICT education, establishing laws on ICT, and securing sponsorship of high ranking civil servants who execute the e-Government. Building a strong and competitive country by establishing citizen-centered, transparent and knowledge based government through utilization of advanced ICT is one of main purpose of e-government master plan.

The ICTA considers that e-Government improves the quality of civil service and provides transparent and efficient administration service based on knowledge with an expansion of ICT infrastructure and integration of information system.

Therefore, there are reasonably better technological possibilities to utilize e-government services in Mongolia. Even though its e-government offerings are still being developed, the greatest gain in rank was posted by Mongolia which advanced from 103rd in 2003 to 75th in 2004 (UN 2004).

The 22 projects of e-Government Master Plan, generally address the digitization of government information and procedures, provision of selected information resources and public services on the internet. The needs of vulnerable groups are very little addressed except The Government Representative Portal, NID (National Identification) System projects.

*The Government Representative Portal* is aimed to enhance convenience in public administration service and realize transparent, democratic administration processes, which are led by reducing required paper documents and lessening people's visiting counts to public offices with various online administration services such as offering information, collecting people's opinions, and processing civil petitions.

*NID (National Identification) System* is aimed at developing all citizens' basic personal database and providing personal identification by ID cards. It also helps the online service for the public, supports prompt actions to civil services available by ministries and public agencies, and reduces duplicate documents for civil petitions by preventing duplicate management of citizen related information.

The following suggestions should be additionally clarified to the e-Government Master Plan:

- e-Government Master Plan is not only successful but also helpful and important for the further growth steps, obtaining additional financial and government support. However, this plan has very little address the needs of vulnerable groups. In the future, Government of Mongolia will provide more accessible services by community centers and ensure to facilitate inclusion vulnerable groups of Mongolian society.
- Even The Government Representative Portal, NID System projects were drafted, the implementation mechanism and financial issues are still not clear. If the smart card will be introduced, it is not clear how the vulnerable groups can afford to buy and use them. For example, in the mid 90's the plastic card is introduced to NID in Mongolia. Even the plastic costs 5800 tugrug<sup>2</sup> (3800 for the plastic card+2000 for photo), or approximately 4 USD, this nation wide process of issuing cards continued for almost 10 years, and people who did not had this plastic card, mostly representatives of vulnerable groups, met many difficulties in participating elections, visiting hospitals and using for public services.<sup>3</sup>

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<sup>2</sup> Tugrug is Mongolian currency.

<sup>3</sup> ICTA. Site survey review for Mongolia NID, 2005.

## 1.2. Low Cost PC & Affordable Internet Program

The Government of Mongolia launched Low Cost PC& Affordable Internet programs under the e-Mongolia National Program. The main objective of this program is (i) to give opportunity to buy cheap and qualified computers and its' complements to Mongolian citizens, especially low-income households and (ii) to provide Internet dial-up service by 1 Tugrug.

In June 2005, Parliament of Mongolia passed amendment for Laws on custom tax-free for computer and its accessories and VAT exception for software products. These regulations will be support local software industry and supply of computers with affordable prices in Mongolia.

**Low Cost PC Program:** One result of these regulations, the ICTA concluded a contract with Intel Inc on supply of processors and accessories for domestic market in cost starting from 250 US dollar. Intel Inc has taken a mayor role in successfully spearheading PC ownership Programs of this scale in the Asia-Pacific countries. Computers being sold under the Low Cost PC program are classified A, B, C and D, according to technical and special indicators. For low income families, usually choose A class computer, which has cheap processor, with low energy consumption, able to use ordinary program and connect to the internet, costing US\$250.

PC supply companies have booths at the PC Exhibition, which will run to July 9, 2005 while 6 commercial banks have representation and loan and leasing services. Average rates of loan per month are around 2.3-2.5% by Tugrug and 1.7-1.8% by US Dollar. For example, the leasing service of Commercial bank enables customers to purchase computer within 1-2 days after submitting required documents such as income statement from employer, copies of NID and social insurance card.

### **Box 1. Computer usage for people with disabilities in Mongolia**

In December 2005, World Bank Public Information Project has donated special Braille's software of and additional facilities for people with visual disabilities to the Open Society Forum's development Information center. This software and technical facilities can utilize Mongolians with visual disabilities to get information via computer and use wide possibilities Internet.

In addition, ICTA has been presented by 20 PCs to the Special school No29 for children with disabilities. In November 2005, ICTA has donated 150 used PC for children of poor families, orphan houses, children with disabilities.

*Source: Open Society Forum and ICTA annual report 2005*

As 20 of December 2005 "Low cost PC program" national project that started from June 2005, the public exhibitions is organized in capital city and in the provincial centers in total number 8263 computers were sold. The A class computer was sold in 1132 (see appendix-1), which is approximately 14 per cent. From this number, we can conclude that low income customers still can not afford the computers even the prices were reduced. They prefer buy daily foods and consumptions.

Recently, Government of Mongolia is implementing second stage of “Low cost PC” Program which aims to computerize 40 thousand households, especially low-income households from this year.

**Affordable Internet program:** The Mongolian Internet Service Provider Association (MISPA)<sup>4</sup> introduced Affordable Internet Program or “1 Tugrug Internet campaign” for dial-up connection and the cost of basic Internet had been lowered to 1₮ for 8 pm to 8 am and 4₮ for the other twelve hours. Some of major operators such as Mongolia Telecom, Mobicom Corporation and Skytel mobile companies contributed this program for one year. Recently, these companies are planning to introduce high-speed Internet technology in urban areas. Several Wi-Fi hot spots were established in the dense populated districts of Ulaanbaatar city and Internet service is free of charge.

Because of these programs, the service fee for ADSL is decreased by 50 per cent. The price of internet leased line was reduced for 5 times, and the price per flow of 1Mb/s will be approximately 400 USD. Ulaanbaatar Electricity Distribution Company is also providing 20 percent discount electricity service for poor people, especially vulnerable households from April 2005.

The following suggestions should be additionally clarified to the Low Cost PC & Affordable Internet Programs:

- Within the framework of “Low cost PC” program, the government agencies are cooperating closely with bank, financial organizations and computer trade companies. However, computerization program is still in the initial stage. This is good opportunity to purchase personal computer for people with low income and to gain additional income and self education by using computer.
- The level of computerization in Mongolia varies social groups, incomes, and regions. The major constraints for the using computer are followings (a) low computer literacy (b) limited Mongolian content in Internet (c) English language barriers and (d) limited business opportunities
- As the Affordable Internet Program is only for 1 year, the further Government coordination of Low cost PC and Affordable Internet Programs is needed. However, the internet cost should be reasonable.

### 1.3. “Open Government” Portal

Since 2000, this portal was created by Prime Minister’s Office in Mongolian and English and contains news, information, legislation, tips, and subscription to the e-Newsletter, a search and information released by the Government Press Office. The main objective of the website is to allow people to address by Prime Minister of Mongolia and to find information on how the comments on the forum are used, and brief biographies of Advisers to the Prime Minister (see Fig. 2).

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<sup>4</sup> MISPA is non government organization which serves to Mongolian community. Its mission is to improve Internet service and increase to access to the Internet and domestic applications.



Fig. 2. Open Government Website

This website has some draft laws awaiting the Parliament discussion which have an impact on the issues related to the business environment and of public concern. The section Laws has many laws in Mongolian language. The *Parliament agendas* page contains lists of laws adopted by the Parliament and draft laws. Also visitor may access other websites with Mongolian legislation at *Link with laws*.

Visitor may express his or her opinion on pending laws and hot issues in Discussion Section.

If the law that visitor needs, is not on this website, he or she can go to Links with laws and get texts of laws from the Parliament website or the website of the Ministry of Justice and Home Affairs. Although very few laws have been translated into English, the website of the Ministry of Justice and Home Affairs has some laws in English. The majority of laws are initiated by the Government. This website hosts draft laws initiated by the Government and encourages discussion of these draft laws.

The most important part of the website is Discussion. According to the marketing plan of 2005, Open Government office has organized 3 public discussions on Taxation reform (to see Box 2) and State Budget for 2006 via Internet as well as other conventional media as prints, newspapers and TV programs to reach rural people.

### Box 2. Open talk on Taxes

On October 4, the Open Government website sponsored a highly successful national "Open Talk on Taxes" with the Ministry of Finance and General Department of National Taxation broadcast live on national TV, radio and internet. Over 600 visitors from five different countries participated through the Internet chat lines and asked 63 questions; 115 questions came through live telephone lines. There were 142 short text messages with questions and 14 questions from the live audience at the ICT Conference Hall. An estimated almost 700,000 Mongolians watched or listened to the program. On behalf of the Minister of Finance and the Director of GDNT we thank you for your interest and participation.

We are pleased to announce the continuation of our national dialogue and discussion on taxes. Our **second Open Talk on Taxes** will take place on Tuesday, 18 October at 7:30 p.m. with the participation of representatives from the private sector and civil society such as the Mongolian National Chamber of Commerce and Industry, the North-America Mongolia Business Council, the Mongolian Employers' Association, the Mongolian Association of Meat Exporters.

Tune in to Mongol TV or radio at that time and be ready to give your views, ask your questions through telephone, Internet, and by sending short text messages through your cellular phone. Our government is committed to open dialogue and discussion of national matters affecting all Mongolians. Through the Open Government website we are providing you with the opportunity to participate in our discussion about taxes. We want to hear your views!

Source: Open Government Website, accessed by 25 December, 2005

Through the Forum visitor can give his/her comments on certain issues, initiate new discussions and view comments of other users, that is, he or she can participate in electronic discussions. There is a poll to ask visitors, whom he/she wants to invite for the interview. The majority or 45% of visitors said that they want to interview the members of parliament, 30 % of visitors said that they want to interview the member of Cabinet.<sup>5</sup>

According to the wish of visitors, the most wanted person is invited for interview. Through the visitor can chat with high-level government officials and politicians in one hour online conference which is held 2 times per month. In Questions and Answers section, we put interviews made by journalist. Moreover, State Ikh Hural's members and Ministers are giving interview to them by Internet, especially via Open-Government Website.

Despite his busy schedule, the Prime Minister regularly visits Open government website. Also the comments posted on the forum are sent to the Prime Minister and related Ministers every two weeks in abbreviated form.

The following suggestions should be additionally clarified to the Open Government website:

- In meantime, website addresses only central government issues, in the future cooperation with local governments is needed to provide a channel for local citizen's voice to be heard. The web site can be utilized to summarize common issues in local community level such as poverty reduction, health and education services, environment problems (for example the fight against desertation, drought, dzud<sup>6</sup> disaster), land management (for example the mining site, school area). This can help to improve the linkage between community to community, community to local government, community to central government, local government to central government activities.
- Although there approximately hundred web site, related to the Government organizations, some of them are not updated, provide little relevant and accurate information and little functionality. Therefore, the open government web site needs to serve as a portal web site for the GOM. The linkage of the open government web site with the web sites of other government organizations should be improved.
- It is not clear how the suggestions and comments from discussions will effect to the Draft Law or other documents. In other words, the feedback mechanism from Government on the citizen's comments and suggestions is not established. As stated in the Constitution of Mongolia, the President, the members of Parliament and Government has a right to initiate law. The citizen may indirectly participate in decision making through these 3 legal bodies. May be, the procedure on the citizen's participation to the decision making process should be developed. The majority of laws are initiated by the Government.

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<sup>5</sup> <http://www.open-government.mn/phpgov/indexhome.php?vmenunum=100&vlang=0&vurl=/phpgov/index.php>

<sup>6</sup> Dzud is natural disaster caused from heavy snows.

## **2. e-Government Key Challenges**

This chapter analyzed the e-government key challenges in Mongolia. The presented findings are based on the implemented programs, projects, research papers, conference materials, newspaper citations, internet resources in related topics.

The key challenges identified in the adaptation of the e-government initiatives, especially for poor and vulnerable groups in Mongolia such as (a) Citizen Participation, (b) Human Development and Security Issues and (c) Digital Divide.

In this chapter, the three key challenges we will be discussed in more detail.

### **2.1. Citizen Participation**

In Mongolia, citizen participation is low, due to a lack of initiative, and due to the inertia left behind by a command-administrative system, which discouraged ordinary people at the grassroots from taking personal and community responsibility. In addition, the low population density, financial constraints and underdeveloped communication networks has added barriers to participation, while there exists a poor understanding of democracy and human rights (GOM 2003, 17)

In 2000, the Prime Minister's Office launched "Open Government" website. The e-participation mechanism includes an online legislative and online policy forum via website. Both are frequently used and appear to be very popular. In addition, on occasion, there is an "online conference" in which users are given the opportunity to chat directly –albeit electronically – with identified officials (UN 2004, 32).

For the past years, NGOs have contributed the shaping up of ICT sector in the country directly and indirectly. The most active NGO that support the government in the realization of ICT Vision 2010 is the MIDAS (see <http://www.ict.mn/midas>).

Recently, the ICTA is developing a draft law on Electronic governance. The draft Law appears to create a presumption of free access by Mongolian citizens to all non-confidential e-government information. This would be a significant victory for transparency in the Government of Mongolia.

However, much will depend upon the meaning of "confidential" – that is, upon what information can be withheld by the Government of Mongolia - and on the manner in which disputes over that designation are settled. McLaughlin (2003) argues that the draft Law should be revised to narrow and clarify the exceptions to the presumption of citizen access to e-government information and the process for adjudication of disputes should be reconsidered and rewritten to give jurisdiction to the courts. In addition, comprehensive data privacy definitions and protections should be added.

Therefore, the Government of Mongolia considers that e-government can help strengthen citizen participation in the decision making process, promote open and accountable government, help to prevent corruption and protect personal information (Odgerel, 2005).

## 2.2. Human Development and Security Issues

The Human and Development and Security objectives are directly impact to the economic growth and poverty reduction strategy in Mongolia. These objectives aim to create income-generation opportunities for the vulnerable groups, engaging them in decision-making processes and thus securing their social protection.

It is true that according to the Human Development Index, Mongolia is classified as 117<sup>th</sup> out of 177 countries. However, this reflects in large measure the low GDP of Mongolia rather than life expectancy and literacy indicators, which are relatively high. It is true value of the human assets in Mongolia is that when it is juxtaposed with natural biodiversity of the country, it potentially promises significant opportunities in biotechnology, pharmaceuticals and cosmetics, in addition to ICT (UNDP 2005).

UNDP experts (2002) also proposed using the human assets of Mongolia as a platform for knowledge-based growth, relying on the creation of jobs in Information technology and others sectors, using the literate, educated workforce of the country (ibid., 44).

Human development issues have not been adequately addressed during Mongolia's decade long transition to an open economy and democratic political system. The strengths of Mongolian human resources are youthful population (50 % of its population 20 years old or younger) high literacy rate (97.8 %), safe and stable society, linguistic competence and perseverance, However, In Mongolia, the cost of delivery service is very high due to the widely-scattered settlements, sever climate, and in the case of education, very high proportion of the population which is of school age (ADB 2004).

### **Box 3. Mobicom Charity to children with disabilities**

In December 2005, Mobicom Corporation, first mobile provider of Mongolia has organized auction for lucky numbers such as 9908xxxx. Within this framework action, Mobicom has donated MEGA XP apparatus to the children with disabilities. This massage apparatus is relaxing the muscle, especially useful children with tough muscle and movement disabilities. MEGA XP massaging apparatus is first time introduced into Mongolia and specially ordered by South Korean Yonsei Rehabilitation Treatment Center. This apparatus is relaxing tough muscles and articular chronic diseases.

Tough muscle relaxing apparatus is successfully used in medical practices of developed countries and treatment results were positive effect has been approved by many international research works. So children with polio can be treated by this apparatus and go to school and communicate with society.

*Adopted Article "Mobicom charity to children with disabilities", published by Zuunii medee newspaper, 06 December, 2005.*

To address human development and security issues, knowledge management initiatives are required focusing on staff training, seminars and workshops in order to create the basic skills for e-government services. The availability of appropriate skills is the essential for successful e-government implementation. Mongolia is also very young country it learns quickly. This country is largely influenced by nomadic culture, which gives it a very flexible mentality. For centuries, we have learning to adapt to ever changing environments.<sup>7</sup> However, the lack of human resources, financial constraints, and low computer literacy in Mongolian are significant challenges.

Therefore, the Government of Mongolia considers that one of the essential tasks for Mongolians at the beginning of the 21<sup>st</sup> century is to become universally computer literate.

### 2.3. Digital Divide

As a large landlocked country with sparse population Mongolia is subject to the “tyranny of distances”. A significant part of the population resides in the three main cities of Ulaanbaatar, Darkhan and Erdenet. Significantly, about one million people, mostly herdsmen, live in the rural areas. There are around 340 village centers with herdsmen living in a radius of 5 to 40 km around such centers. Low population density and large distances make traditional means of land transportation and the provision of services like health and education extremely costly and economically unviable for rural residents. These conditions, combined with a severe continental climate and a growing season lasting no more than 100 days are significant obstacles to nation-building, education and integration into the world economy (GOM 2005).

At the end of 2002 it was estimated that the country had 69,000 PCs. In terms of ICT education it was found that 44.7% of students in the rural areas did not have access to ICT education and 23.8% of teachers teaching ICT had no access to computers. About 20 percent of the working-age population is estimated to be unemployed or under employed with urban areas being worse off as compared to the rural areas (ibid).

Last decade, the Mongolia embraced ICT right from the beginning although it focused its effort mainly on the rehabilitation of telecommunication infrastructure. Infocon (2002) found that there have been lack of official statistics available on ICT development and the lack of reliable data sources restricted preparing a comprehensive study on e-readiness assessment of Mongolia.<sup>8</sup> The study highlights that the ICT tools have rapidly penetrated with Ulaanbaatar city and their availability in rural area is extremely limited. The small market, low computer penetration and high start-up costs for ICT businesses in rural areas are significant barriers. The gap between information “haves” and “have-nots” are increasing not only between urban and rural areas (to see Appendix 2).

The municipal government of Ulaanbaatar city has initiated the “e-Ulaanbaatar” project in 2003, to promote computerization in districts, bridge digital divide between

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<sup>7</sup> Business Opportunities-Mongolia 2003. *Fortune Magazine*. December 1, 2003.

<sup>8</sup> E-readiness assessment methodology and approach used by the team are based on the guide for developing countries “Readiness for the Networked World”, available at <http://www.readinessguide.org>, as presented by the Center for International Development at Harvard University.

districts and decrease the bureaucracy in public services. The limited number of municipal regulations, procedures, and applications can be downloaded.

Therefore, Government of Mongolia has an objective to ensure that all Mongolians will access to info-telecommunications services. According to the definitions of the Communications Law, "Universal service obligation" means in the frame work of state policy, a delivery of telecommunications' essential service to population of remote areas and areas without service access, at real cost. Imagining of Mongolia's geography the government believes that the appropriate target is to provide each soum with Multi-purpose Telecenter's that provide a range of basic telecom services including Internet access.

There are several case studies for introducing Internet centers in Mongolia. For example, within framework of the "ICT for Sustainable Human Development" project, Governor's offices and Citizen's Information Centers of 5 provinces were interconnected. During 1998-2001, Mongolian Foundation of Open Society also launched Internet Community Centers in 3 province center's libraries and governors offices. These projects were in time but the after project implementation, these centers were have been closed due to the mismanagement of project sustainability, budget constraints and lack of IT professionals. The usage of Internet centers in province center was limited dialup Internet access. For customers the content supply initiative was inactive (Odgerel 2005).

Based on the assessments of these projects, Ministry of Infrastructure (now ICTA) established 5 Community Internet Centers under the Provincial Telecom office of Mongolia Telecom in 2002. In December 2005, Information and Communications Development (ICDC) extended 5 Community Internet Centers.

In 2005, e-Soum web site launched with joint effort of IT Incubator companies, and MOU to collaborate towards e-Karakorum (old Capital of Great Mongolia). e-Soum project contract was signed by public-private partners namely ICTA, National IT Park, the Governor of Uvurkhangai province (where Kara Korum is located) MIDAS/MONITA NGO and some representatives of IT companies of Mongolia.

Since November 2005, ICDC are implementing pilot project on wireless Internet system in Mungunmorit soum<sup>9</sup>. The objective of this project is to introduce LDDL equipment for its qualification in Mongolia in order to improve Internet environment in rural areas. Under this project, schools, and hospitals, governor's office are connected with Internet and VoIP/GW.

There are 2 mobile operators and approximately 0.6 million users by end of 2005. However, other services expect SMS (message) are not popular. The central and local governments should investigate the possibilities of introducing "m-government". For instance the weather, market prices some community information would be beneficial.

In cases of Mongolia, there are several problems for introducing new technologies such as type of technology, installation method, construction costs, due to small population and vast territory of Mongolia. On the results of these projects, we will be solve abovementioned problems and can be find good solution in rural areas of Mongolia for the introduction of local e-government.

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<sup>9</sup> Soum is middle size administrative unit in rural area of Mongolia.

### 3. Conclusion

The Government of Mongolia recognizes the importance of e-government in delivering public services to sparse population living in vast territory. Mongolians learn quickly. This nomadic culture gives Mongolians very flexible mentality. However, lack of human resources, low ICT/computer literacy, and low citizen participation in Mongolian are significant challenges. Now, channels for participation have opened for Mongolians, through the growth of civil society, expansion of market, democracy, and telecommunications.

Summarizing the above stated findings, there can be made following conclusions.

1. There are some well designed and formulated programs and projects, especially e-Mongolia Program, e-Government Master Plan and Low cost PC program. Within the public-private partnership framework, the Government of Mongolia is successfully cooperating with bank and financial organizations, telecommunications' operators, ISPs and computer trade companies. However, procedural and financial clarifications are essential for the implementation process.

2. These programs have very little impact to enhance citizen's participation. In the future, Government of Mongolia will provide more accessible services by community centers and ensure to facilitate inclusion vulnerable groups of Mongolian society. There is a need of clear and prompt strategy, to identify what actions we need to take and how to prioritize our actions.

3. The studies show that existing policy documents address only central government issues. In the future more intensive actions should be done to develop local e-government. This can serve a good chance to provide hear local citizen's voice, bridge digital divide, promote citizen's participation. This local e-government can be utilized to summarize common issues in local community level such as poverty reduction, health and education services, environment problems and land management.

4. Government of Mongolia takes some actions to bring new market opportunities for businesses and local people. Initial steps towards creation of Telecenters or Internet Community Centers have started in Mongolian rural areas with joint effort and valuable contribution of different stakeholders. Unfortunately, funding for regular operation of such centers became more problematic without sustainable business model. Therefore, Mongolia urgently needs to take some actions to develop local e-government initiatives and bridge digital divide.

## 4. Appendices

### Appendix 1

#### Result of Low cost PC Project in Mongolia

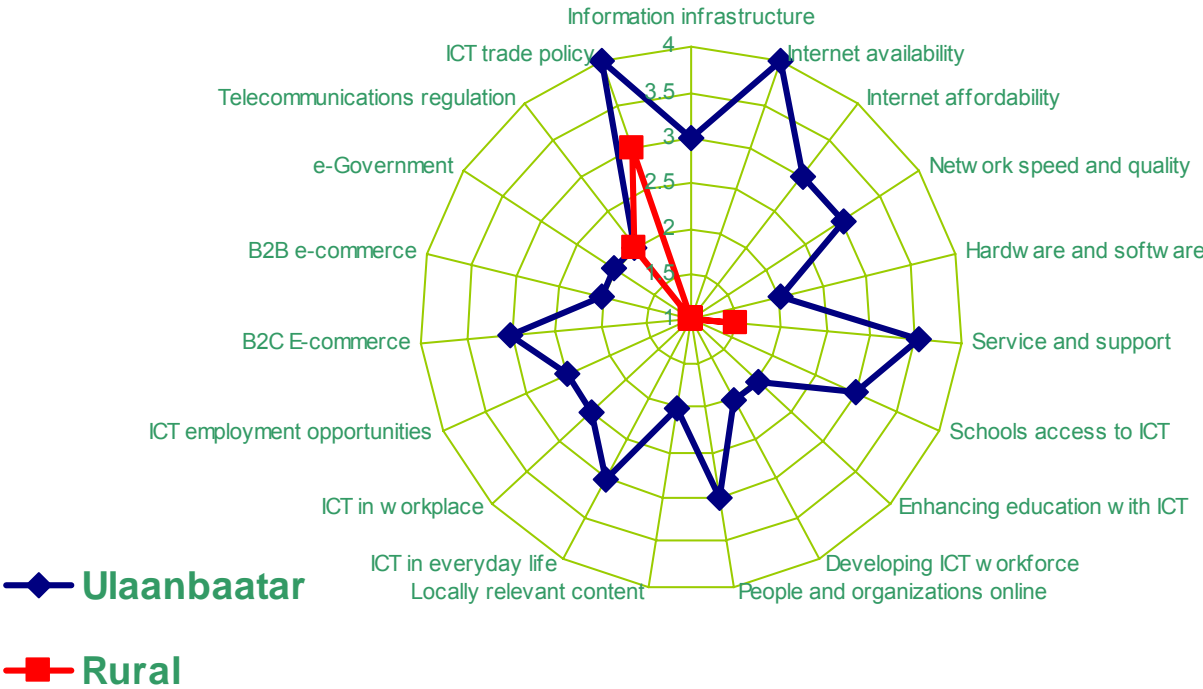
<b>№</b>	<b>Month (where)</b>	<b>PC</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>D</b>	<b>Leasing</b>
1	July (PC shops)	931	202	170	257	302	499
2	August (PC shops)	1179	248	238	464	229	311
3	September(PC shops)	970	150	282	283	255	382
4	October (PC shops)	946	90	236	405	215	362
5	November (PC shops)	1267	62	298	722	185	318
6	Public Exhibition in Ulaanbaatar (June-July)	1041	163	286	341	251	375
7	Public Exhibition in Ulaanbaatar (Sept)	707	95	209	238	165	258
8	Public Exhibition in Erdenet and Darkhan cities (Sept)	471	37	139	201	94	246
9	Province centers	612	85	219	243	65	361
	<b>Total</b>	<b>8124</b>	<b>1132</b>	<b>2077</b>	<b>3154</b>	<b>1761</b>	<b>3112</b>

Source: ICTA Annual Report 2005. Ulaanbaatar

Appendix 2

Assessment Indicators for E-Readiness of Mongolia to the Networked World (Infocon 2002)

E-readiness of Mongolia to Networked World



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**SHORT BIODATA  
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Mr. Odgerel Ulziikhutag is the Director General of the Post Department of the Ministry of Road, Transport and Tourism of Mongolia.

He has a twelve years experience in Information and Communications Technology (ICT) policy issues in such areas as network planning, project implementation and monitoring. Recently, he has been involved with e-Government initiatives and e-Mongolia Program.

Before Mr. Odgerel Ulziikhutag worked as Head of Information and Communications Development Center, ICT officer in Communications Department and Director in Information and Monitoring Department of the Ministry of Infrastructure, Mongolia. He was a one of authors for developing “Mongolian ICT vision -2010” and “e-Mongolia Program”.

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Mr. Odgerel Ulziikhutag has a Bachelor degree from Mongolian Technical University as an electronics engineer, Master of Science in Telecommunications from the Mongolian University of Science and Technology and a Master of Philosophy in Infrastructure Management from Yokohama National University of Japan.

In the meantime, he is doing a doctoral research focused on understanding the Mongolian public organizations cultures and improving the decision making process for e-government and ICT policy issues.