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IFAP: JUSTIFICATION, ORIGIN AND IMPLEMENTATION OF THE
PROGRAM OF UNESCO IN THE REPUBLIC OF ECUADOR 2001 - 2013

GRADUATION WORK PRIOR TO OBTAINING THE BACHELOR'S
DEGREE IN INTERNATIONAL STUDIES WITH A MINOR IN FOREIGN
TRADE

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Abstract

The aim of this graduation project was to analyze the origin, implementation and results of IFAP Program in Ecuador. We examined the accomplishment of the objectives pursued by the UNESCO and we compared them with the ones obtained in other cities where the project was executed.

We began the development through a brief overview of the activities carried out under the IFAP program, both in Ecuador and worldwide. Later we learned in detail the process undertaken in the development of “E – Government Model for World Heritage Cities Program” and “Access to Information, Accountability and Transparency in the Andean Region Program”. To compare the results obtained in Ecuador with the ones of other cities allowed us to get vast knowledge of e-government progress locally and nationally. We concluded that political will plays a major role in the continuity and exploitation of the program.

Introduction

We have surpassed the industrial society; it is not only the ability to produce goods that determines the wealth of nations, but the quality of its human resources. A society isn't necessarily smarter according to the intelligence of its individuals but their ability to access readily available information.

We live in the midst of the information revolution, a period in history that is very close to our point of study in terms of time, but which we can now recognize unique features in which new technologies are protagonists. Information is increasingly available to the average citizen as there is better access to it. With an almost direct contact with sources, citizens share and disseminate their own knowledge, thus creating a network of information unprecedented, unthinkable a few decades ago. However, disparities are still present; in 2013 only 39% of the world population had access to internet¹ and 65%² in Ecuador, with an estimated growth of 200% in 5 years (2008).

The technological potential today indicates that there is still a huge room for improvement and greater diffusion of these technologies in the service of society without ever neglecting the human factor, meaning that not only must we reduce the digital divide but also the education gap so that the human element can effectively capitalize on the anticipated benefit of new technologies.

Therefore, education concerning access and use of new technologies should be a key element in planning the development of a state as well as technology implementation, understanding that this is a value that can only enrich democracy and freedom for all states of the world. The UNESCO IFAP program could be feasible for the creation of an inclusive society in Ecuador, as long as they know how to take advantage of it.

¹ International Telecommunication Union. "ICT Facts Figures." 2013. <http://www.itu.int/en/ITU-D/Statistics/Documents/facts/ICTFactsFigures2013.pdf> 27 de Sep 2013.

² INEC. "Acceso a Internet Ecuador. "Ecuador en Cifras. 2013. INEC. 27 Sep 2013 <http://www.ecuadorencifras.com/cifras-inec/cienciaTecnologia.html#app=6a63&cd55-selectedIndex=0>

Chapter One: Background

Introduction

In the letter of the constitution of UNESCO on 16 November 1945, the functions and purposes of the organization are set, concerning access and dissemination of information; it states, “. . . We encourage the mutual knowledge and understanding of peoples lending their support to the organs of mass communication and to that end recommend such international agreements as may be necessary to promote the free flow of ideas by word and image. . .”³

In this context, access programs and dissemination of information are created. The first signs of progress occurred in 1967 when UNESCO jointly with the International Council of Scientific Unions decided to join forces to develop a study to determine the feasibility of a world science information system. Study results and the proposed establishment of system, which will be called UNISIST,⁴ was presented at the 1971 General Conference in Paris. The system is “a flexible network based on the voluntary cooperation of existing services to be created,”⁵ and its main objective is the deployment of scientific information in the world through collaboration and cooperation of scientists to create a joint network that leverages the existing literature and use for the benefit of science.

Through the program, UNESCO is committed to providing support for the promotion of international scientific cooperation agreements, assist developing countries to access material, encourage processes and techniques to enable the exchange of information, facilitate access to information without administrative and legal obstacles, promote the

³ UNESCO. "Constitución de la UNESCO." Portal UNESCO. 2013. UNESCO. 27 Sep 2013

http://portal.unesco.org/es/ev.php-URL_ID=15244&URL_DO=DO_TOPIC&URL_SECTION=201.html

⁴ Rose, John B. "The UNESCO General Information Program and its role in the development of Regional Cooperative Networks." *Purdue University*. 1989. Purdue University. 29 Sep 2013

<http://docs.lib.purdue.edu/cgi/viewcontent.cgi?article=1175&context=iatul>

⁵ UNESCO. "Unisist." Portal UNESCO. 1971. UNESCO. 29 Sep 2013

<http://unesdoc.unesco.org/images/0013/001356/135602so.pdf>

inclusion of as many scientists in different areas for proper development of the system, among others.⁶

In order to have a clearer understanding of the contribution of UNESCO and UNISIST, we refer to 1960, where there was already a strong rejection of the manner in which it was disseminating scientific information; there were no unified centers or networks of information, much of the new literature was a constant repetition due to lack of communication between colleagues and the difficult access to the material. Further information centers such as libraries did not provide adequate infrastructure accompanied by problems of translation of works in other countries. Some developed countries had available digital tools for information management, instead of contributing to the fragmented dissemination.⁷

We should add that the “information revolution” allowed for an increase of knowledge at unprecedented numbers. “It was not until 1750 that human knowledge was first doubled. The second duplication occurred 150 years later in 1900. The third duplication took place in the 1950s. Viewed another way, technology has multiplied ten times every 50 years for more than 2,800 years. In 1950 there were one million scientists and engineers in the world, in 1900 there were 100,000, in 1850 there were 10,000; and in the year 1800 there were only 1000.”⁸ So the time was right for the participation of UNESCO with a program like UNISIST that suited the needs of that era.

In 1977, the General Information Program, known by its acronym GIP, was created to group all activities carried out by UNESCO in the field of information. The program was divided into periods with plans of 6 years. The first from 1977 to 1983 gives vital information as a source of development and emphasizes the transfer and access of information, hence the role of UNESCO is to develop and promote information systems and services at national, regional, and international levels.⁹

⁶ UNESCO. "Unisist." Portal UNESCO. 1971. UNESCO. 29 Sep 2013
<http://unesdoc.unesco.org/images/0013/001356/135602so.pdf>

⁷ UNESCO. "Unisist." Portal UNESCO. 1971. UNESCO. 29 Sep 2013
<http://unesdoc.unesco.org/images/0013/001356/135602so.pdf>

⁸ Reilly, Philip. *Conferencia de procedimientos de tecnología de la información*. San Juan Puerto Rico, 20 June 1968

⁹ Plate, Axel. "Medium Term Plans." UNESCO'S Information Concept. France: UNESCO, 1997. 221.

The second period comprising 1984-1989, emphasizes the challenge facing UNESCO in the “elimination of language barriers, administrative, and financial colleagues to prevent free access to information”¹⁰ working primarily with developing countries. Moreover, the results of the studies for the creation of UNISIST were taken into account in order to prevent fragmentation and cluttered information.

In 1990-1995, there was a significant change in the activities of the program, due to the development of new technologies, the focus was to encourage their use, not only for technical and scientific information as promoted in UNISIST, but this time include libraries, archives, and other information systems. Given the fact that at this time many member states had or were going to implement information policies, UNESCO continues handheld technological advances that create an infrastructure of information.

From 1992 until now, the strategic plan is no longer concentrated in periods of six years; this term will last until there is a replacement program. There are 4 main tasks: 1) preserve the memory of the world 2) information for education and learning 3) Information for Human Development 4) information management environment.¹¹

There were several conferences, seminars, symposia, guides, training, missions to various states, collaboration with NGO's, promotion of activities in regional institutions, all which were conducted to achieve the objectives of the GIP.

After the creation of the GIP, nine years later, in 1985, the General Conference approved the establishment of the Intergovernmental Informatics Program, known by its acronym as IIP.¹² The program works in two axes, the first, “computer and development,” seeks specialist training and the promotion and strengthening of infrastructure development challenges. The second, “computers and society, is applied in the training and education of society to use and develop the tools of information, especially students of the time; states were aware that infrastructure development and promotion of computers facilitate their development.¹³

¹⁰ Plate, Axel. "Medium Term Plans." UNESCO'S Information Concept. France: UNESCO, 1997. 221.

¹¹ UNESCO'S Information Concept. France: UNESCO, 1997. 223.

¹² Conferencia General UNESCO. "Creación de un Programa Intergubernamental de Informática y del Comité Encargado de Formular este programa." UNESCO1985: 1. UNESCO. 30 Sep 2013 <http://unesdoc.unesco.org/images/0006/000650/065067sb.pdf>

¹³ Comité Intergubernamental del PGI. "Documento Principal de Trabajo Primera Reunión."

The challenge of the IIP was to achieve efficient cooperation for the development of information to all states, especially those less developed urgently needing support towards promoting competitive moves. So their main role was to “strengthen international cooperation and national efforts aimed at training specialists, infrastructure development, the definition of national policies, and better recognition of the role of computing.”¹⁴

By 1997, discussions focused on the joint cooperation of the IIP and the GIP whose activities were closely related. While the GIP was part of content and access, the IIP was provided through the promotion and dissemination of the development of computer and telematics tools. It is in this year, at the General Conference committee meetings, that the merger took place.¹⁵

Some of the activities carried out by both programs include: “the formulation of national and/or regional information policies (including policies of “universal access”), creating networks of people and institutions (with a view to exchange experiences and knowledge), the establishment of virtual communities of learning, virtual schools and virtual labs, providing assistance for the development of good government services online and MCTs in rural or disadvantaged areas, promoting access to information and improvement of infrastructure of public libraries to illiterates, as well as archives and documentation centers as gateways to information, including the creation of virtual libraries.”¹⁶

1. IFAP: Definition and History

The General Conference of 1999 created a program for the replacement of the PGI and IIP in 2000; with approval of the Executive Council in its meeting, No. 160 and No. 3.6 was adopted and decision No. 3.6.1 gave birth to the Information for All Program

Portal UNESCO1986: 21. UNESCO. 20 Sep 2013

<http://unesdoc.unesco.org/images/0006/000698/069803sb.pdf>

¹⁴ Comité Intergubernamental del PGI. "Documento Principal de Trabajo Primera Reunión."

Portal UNESCO1986: 21. UNESCO. 5 Sep 2013

<http://unesdoc.unesco.org/images/0006/000698/069803sb.pdf>

¹⁵ Consejo Intergubernamental del Programa de Información. "Reunión Conjunta del Consejo del PGI y del Comité PII. "Portal UNESCO. 1998:2. UNESCO. 2 Oct 2013

<http://unesdoc.unesco.org/images/0011/001133/113338so.pdf>

¹⁶ Consejo Intergubernamental del Programa de Información. "Reunión Conjunta del Consejo del PGI y del Comité PII. "Portal UNESCO1998: 3-23. UNESCO. 2 Oct 2013

<http://unesdoc.unesco.org/images/0011/001133/113338so.pdf>

(IFAP).¹⁷ The program is a platform for international debate, analyzing the ethical, legal, social, and cultural consequences of the new information society; promoting access and storage of information and seeking to eliminate disparities among states, promoting the development of the least developed nations through information. IFAP was conceived to meet the following objectives:

- a) Promote and expand access by organizing, numbering and retention of information;
- b) Support the production of local content and foster the dissemination of indigenous knowledge through basic literacy and introduction to information technology and communication;
- c) Promote international reflection and debate on the ethical, legal and societal demands made to the information society;
- d) Support training, continuing education and learning throughout life, in communication, information and informatics;
- e) Promote the use of standards and best practices in communication, information and informatics in the fields of competence of UNESCO;
- f) Promote networking of information and knowledge at the local, national, regional, and international levels.

The report for the creation of the program presented in general conference used the term “info-rich” and “info-poor” to refer to the uneven situation among states as UNESCO considers information as a public good that allows development through use of good management. It also states that the IFAP cooperate with parallel programs, either UNESCO or the United Nations, as well as non-governmental and private institutions in order to establish common policies and models of effective information management.

The first evaluation of the program for 2007 stipulates the necessary conditions that must exist for projects to be part of IFAP, i.e. the activities and actions to be governed in the various areas or axes planned in document creation.¹⁸

¹⁷ UNESCO. "Historia Programa Información para Todos." Portal UNESCO. 2013. UNESCO. 2 Oct 2013 <http://www.unesco.org/new/es/communication-and-information/intergovernmental-programmes/information-for-all-programme-ifap/about-ifap/history>

¹⁸ Consejo Ejecutivo UNESCO. "Decisiones Adoptadas por el Consejo Ejecutivo en su 160ava reunión."

The IFAP works in 5 axes; the first policy of international, regional, and national information is:

- a) Creating an international consensus on the concept of universal and equitable access to information as a basic human right;
- b) Creating an international consensus on a framework of ethical and legal principles relating to cyberspace;
- c) Establishment of an international observatory on policies at international, regional and national information;
- d) Establish a clearinghouse of information on best practices of good governance based on the technologies of information and communication;
- e) Definition of an international framework for the safeguarding of World Heritage information;
- f) Conclusion of an international agreement on policies governing the necessary exchange of information on the global environment and climate monitoring.

The second area deals with the development of human resources and skills for the information age, comprising:

- a) Development of an international framework to ensure basic literacy and introduction to information technology and communication;
- b) Networking training based on new information technologies and communication for information specialists;
- c) Establishing a framework for cooperation and exchange of information about the content and quality of training in the field of information;
- d) Training activities in publishing and electronic commerce for publishers and producers.

The third concerns the strengthening of institutions that serve as gateways to access information and proposes:

- a) Creating a UNESCO portal dedicated to information agencies worldwide;
- b) National public gateways to information in several countries in each region;
- c) National policy numbering four countries per region;
- d) Setting standards for the management and preservation of recorded knowledge.

The penultimate area of action on the development of tools and systems for processing and managing information is:

- a) An analysis of regional needs and policy planning on creating tools information management;
- b) Preparation of a multilingual set of management tools of information repositories;
- c) Preparation and testing of collections of best practices and standards for information management.

Finally, the fifth field of action on information technologies for education, science, culture and education consists of:

- a) Establishment of an intelligent multi-sectorial and cross-platform information to assist all UNESCO programs and to formulate sound decisions;
- b) Establishment of a monitoring system needs and trends in the use of information technology and communication to promote learning for all along life;
- c) Creating a portal on education that includes links to various virtual universities (feasibility study);
- d) International best practices in the field of electronic publishing in the field of science;
- e) International guidelines for organizing networked access to scientific information;
- f) Extension of data centers and networks for exchange of data and information on the environment in developing countries particularly in Africa;
- g) Substantial progress in establishing global networks of workers and cultural institutions and media working for peace, understanding and development;
- h) Formulation of an international framework on multilingualism and multiculturalism in cyberspace.

Regarding the IFAP Council, the General Assembly designated 26 member states as delegate specialists in the fields of action; IFAP seeks delegates come from different geographic regions to form a diverse and equitable group. Regular meetings are held every 2 years, except for the first 3 years after its creation.

Echoing its nature, the statutes allow virtual meetings with their respective Council Regulations.¹⁹ On funding, states must cover the costs of their delegates and UNESCO assumes the costs for the less developed states. Like other programs of the organization, observers from other states in the council meetings are welcome.

Of the Member states of the Council, 8 of these are chosen to be part of the council table, known as the Bureau, which meets 2 times a year to evaluate and approve projects.

1.1 First Session of the Intergovernmental Council of the IFAP

In the first session of the Intergovernmental Council in April 2002, the first members of the IFAP Council divided by regional groups were designated.²⁰ According to the regulations, 13 states are members of only two regular sessions of the General Assembly, while the other shall serve on the Board for 3 sessions. The following table shows the members of the Board for this session:²¹

¹⁹ Consejo Intergubernamental del IFAP. "Guía de Reuniones Virtuales del Bureau." Portal UNESCO2002: 1-6. UNESCO. 3 Oct 2013
<http://unesdoc.unesco.org/images/0012/001271/127157e.pdf>

²⁰ Consejo Intergubernamental IFAP. "Primera Reunión Consejo IFAP." Portal UNESCO2002: 1-6. UNESCO. 4 Oct 2013
<http://unesdoc.unesco.org/images/0012/001295/129547s.pdf>

²¹ Consejo Intergubernamental IFAP. "Elección de Estados Miembros del Consejo del IFAP." Portal UNESCO2002: 1. UNESCO. 3 Oct 2013
<http://unesdoc.unesco.org/images/0012/001253/125301e.pdf>

	Members States elected from the 31 st to end of the 32 nd session of the General Conference (2001 - 2003)	Member States elected from the 31 st to end of the 33 rd session of the General Conference (2001 - 2005)
Group I	Canada France Sweden	Germany Spain
Group II		Belarus Russian Federation Slovakia
Group III	Brazil Colombia Peru	Cuba
Group IV	India Philippines New Zealand	China Japan
Group V (a)	Cameroon Madagascar United Republic of Tanzania	Benin Nigeria Zimbabwe
Group V (b)	Bahrain	Iraq Mauritania

Figure 1: IFAP Council Members First Session
Source: UNESCO

The first projects of the program are: “Draft Recommendation on the promotion and use of multilingualism and universal access to cyberspace” and the “Project of the UNESCO Charter on the Preservation of Digital Heritage.”

According to the five areas of action, these were the most important contributions of the program:²²

- a) **Policy development of international, regional and national information:**
Generate a policy document for the use of multilingualism and universal access, development of a monitoring system of the Information Society, interconnectivity project in 5 public universities in Ghana, support in the design and creation of information policies in Mauritania and Uganda, government pilot project in Tanzania.
- b) **Human resource development and capacity building for the Information Society:** Develop training module on sanitation and water use based on virtual reality for Africa, Second Edition CD-ROM “Internet for the South,” second edition of the CD-ROM “internet library” training on CDS / ISIS at the regional

²² Consejo Intergubernamental IFAP. "Actividades Recientes de la UNESCO en el ámbito de las TIC." Portal UNESCO2002: 1-13. UNESCO. 3 Oct 2013
<http://unesdoc.unesco.org/images/0012/001254/125408s.pdf>

level in Ecuador, Kyrgyzstan and Thailand training seminars in Ecuador on IDAMS software.

- c) **Strengthening institutions that serve as gateways to information access:**
Support for Memory of the World Program, sponsorship for the creation of a digital library of Latin America and the Caribbean, pilot tele-centers in 5 countries in Africa program. Manufacture of instruments and processing systems and information management: Creating an electronic library pilot in 3 West African languages, publishing CD - ROM treatment instrument information (including CDS/ISIS and IDAM), and free portal computer programs provided by UNESCO.
- d) **Information technology for education, science, culture and communication:**
In the context of education, the “Knowledge Base for Decision-makers on Open and Distance Learning in Higher Education Project”, on science it was developed a “Virtual Laboratory for Draining Lakes in Africa, the Middle East and Central Asia”, in the field of social sciences was developed the program “Information, Technology and Communication as a Tool for Management of Public Affairs in the Local Plane;” and finally on communication, the flagship project “Virtual Universities: benchmarks and guidelines for their creation.”

1.2 Second Session of the Intergovernmental Council of the IFAP

In the report presented at the 2nd meeting of the IFAP Council in 2003, activities are highlighted in the following 5 areas of action:²³

- a) **Policy development of international, regional and national information:**
Draft Declaration of Principles and Action Plan for Information Society to be presented at the World Summit on Information Society, expansion of the Observatory of the Information Society for Spanish and Russian Speakers in order to propose a different discussion without language restriction.
- b) **Human resource development and capacity building for the Information Society:** Information and Electronic Project for Distance Universities in Africa,

²³ Consejo Intergubernamental IFAP. "Informe de Actividades relacionada con los 5 ámbitos de trabajo de IFAP." Portal UNESCO2003: 1-7. UNESCO. 3 Oct 2013
<http://unesdoc.unesco.org/images/0012/001295/129560s.pdf>

Latin America, and Asia; designing a module for training in the use of electronic media for youth under the INFOYOUTH program.

c) Strengthening institutions that serve as gateways for access to information:

Attendance by the Mediterranean Library for multilingual access to material, first meeting of the Asia-Pacific Information Network (APIN), automation of 17 libraries in Argentina and Uruguay, official opening of the library of Alexandria.

d) Manufacture of instruments and processing systems and information management:

Dissemination of information processing instruments of UNESCO (IDAMS, CDS/ISIS) at 1,400 institutions worldwide; the news website “WebWorld” now available in French and English.

e) Information technology for education, science, culture, and communication:

Preparation of a project to promote open access to information in the public sphere in Latin America, proposed draft guidelines in the public domain related to science, capacity building for heritage documentation through the program “Memory of the world.”

UNESCO, through the IFAP program, assisted in the preparation process of the World Summit on the Information Society held in Geneva in December 2003. It gave support through lectures, symposia, and workshops that promoted the four core values that UNESCO considers essential in information societies: cultural diversity, equal access, freedom of expression, and universal access to information. The Declaration of Principles and Plan of Action attested to the will of states to promote inclusive information society based on the values promulgated by UNESCO.

1.3 Third Session of the Intergovernmental Council of the IFAP

The third meeting of the IFAP Council took place in Paris in May 2004; the final report included the election of officers and board members; 24 of the 26 member states were at the session:²⁴

- Germany
- Angola

²⁴ Consejo Intergubernamental IFAP. "Informe Director General sobre la Ejecución del Programa IFAP" Portal UNESCO2004: 1-22. UNESCO. 3 Oct 2013
<http://unesdoc.unesco.org/images/0013/001341/134117s.pdf>

- Austria
- Belarus
- Belgium
- Benin
- Cameroon
- China
- Cuba
- Slovakia
- Spain
- Russian Federation
- Zimbabwe
- Uruguay
- Venezuela
- France
- Indonesia
- Iran
- Japan
- Madagascar
- Mauritania
- Nigeria
- New Zealand
- Peru
- Tunisia

Below are listed the main activities since the last meeting:

- a) **Policy development of international, regional and national information:**
Creation of the Asia and Pacific National Observatory Building by the APIN, establishment of the Observatory for the Information Society in Mozambique - Africa, establishing the Center for Arab states, and an additional one in Brazil.
- b) **Human resource development and capacity building for the Information Society:** Training in some Latin American countries on a possible new version of the ISIS storage program of UNESCO, training young leaders in rural areas of 7 countries on information technology, creating open internet center in Kabul with the support of "INFOYOUTH."
- c) **Strengthening institutions that serve as gateways to information access:**
Support for regional cooperation in order to create an information network that

supports virtual education, virtual universities first seminar for Latin America and the Caribbean developed in Quito, Ecuador; creating a virtual university in the Greater Mekong sub-region.

- d) **Manufacture of instruments, processing systems, and information management:** Improvement of software for libraries, Greenstone; course taught in rural tele-center in Ecuador, Mozambique, and Uganda; forum on use of ICT to optimize the provision of opportunities to women.
- e) **Information technology for education, science, culture and communication:** Progress in the documentation of heritage material in the context of the "World Memory," preparation of training materials for the use of libraries supported by the UNESCO Web Associated Libraries and other partners.

1.4 Fourth Session of the Intergovernmental Council of the IFAP

Although this time the Council had its regular meeting two years later, there were reports of annual activities. At the seventh session of the Bureau, they addressed the need for a regulation of participation for international observers from NGOs and IGOs and the ability to create national committees for support in implementing IFAP projects. They also worked on a "Plan of visibility" to communicate the objectives of IFAP donors.²⁵

In the 2004-2005 report,²⁶ activities are presented in the 4 main areas considered more responsive to the time:

- a) **Information Literacy:** Literacy Program in the Northern side of Ghana for High school Students, Women's Leadership Project in Uganda, Design and implementation of technology-oriented practices in Africa, training program of information literacy applied to public libraries in: Africa, Asia, the Americas, the Caribbean, Europe, and South Pacific; capacity building for literacy in Vietnamese libraries.
- b) **Information and Ethics Guide, free access to the Internet through libraries; promotion of access to information:** copyright and related situations in former republics of the Soviet Union, training school for teachers in Egypt on ethical, legal, and social implications of information technology.

²⁵ Bureau del Consejo Intergubernamental IFAP. "Informe Borrador Séptima Reunión" Portal UNESCO2004: 3-13. UNESCO. 3 Oct 2013

http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CI/CI/pdf/ifap07_final_report.pdf

²⁶ UNESCO. "IFAP: Report 2004-2005"

Portal UNESCO2005: 1-107. UNESCO. 5 Oct 2013

<http://unesdoc.unesco.org/images/0014/001471/147135e.pdf>

- c) **Preservation of information:** Proposed rebuilding of libraries in post-tsunami Sri Lanka, a cooperative program to safeguard the audiovisual information in Afghanistan, a method of preserving the cultural heritage and protection of files in the Caribbean.
- d) **Measuring the Information Society:** Recognition of best practices in projects of information technology and communication.

For the year 2005 – 2006, 24 projects were approved in the 8th meeting of the IFAP Bureau²⁷ and for Latin America, primarily on issues of preservation of information listed below: Preservation of cultural heritage and its applications for education in Chile, the preservation project as a method of protection of cultural heritage of the Caribbean, policies and regulatory frameworks in the area of privacy and public access to information in Latin America, information technologies applied to aboriginal languages and other tongues less commonly taught in Mexico, Peru, and Colombia.

The representative of the Director General of UNESCO (Kofi Annans to date), Abdul Waheed Khan, urged Council members to make further efforts in raising funds for projects; to the date the amount of donations was equal to administrative expenses of maintaining IFAP (approximately \$ 300,000).

To date, there was still no final consensus on the "Visibility Plan" or regulations regarding observers and participants, so the council asked for work on concrete action plans.

In March 2006, the 4th Ordinary Session took place,²⁸ two years after the last one according to IFAP rules (for 3 straight years, regular meetings should be held). Council members from the following countries were present:

- Germany
- Angola
- Austria
- Belgium

²⁷ Bureau del Consejo Intergubernamental IFAP. "Informe Borrador Octava Reunión"
Portal UNESCO2005: 1-14. UNESCO. 6 Oct 2013

http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CI/CI/pdf/ifap8_final_report.pdf

²⁸ Consejo Intergubernamental IFAP. "Reporte Final Cuarta Sesión"

Portal UNESCO2006: 1-10. UNESCO. 6 Oct 2013

http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CI/CI/pdf/ifap2006_final_report.pdf

- China
- France
- Indonesia
- Madagascar
- New Zealand
- Peru
- Uruguay
- Venezuela
- Canada
- Congo
- Czech Republic
- Tanzania
- Egypt
- Ethiopia
- Hungary
- Iran
- Jamaica
- Malaysia
- Poland
- Sudan
- Tunisia

Three strategic areas of action were defined for 2006-2007:

- a) Promote information literacy for everyone.
- b) Strengthen awareness of the importance of preserving information in general.
- c) Promote better understanding of the ethical, social and legal implications of information technology and communication.

Also discussed was the Medium-Term Strategy 2008-2013, UNESCO must have in effect the IFAP Program and aligned with the overall strategy to be promoted by the United Nations (UN). Among the most important developments approved was the “Plan of Visibility,” as well as the creation of new national committees, in addition to the 52 current IFAP committees, with a better and greater empowerment.

In 2007, progress was made in implementing 25 projects and 10 more to be implemented. Among the 25 was the project "E-government Model for Heritage Cities" to run in Quito, Cuzco, and Cartagena.²⁹

According to the request of the Council, 3 IFAP National Committees in Ghana and Nigeria were added. The 55 committees (Annex)³⁰ will give support in 3 levels: a) Effective dissemination of the ideas and concepts of IFAP, b) Promotion of international instruments and standards letters, and c) Support the implementation of the results of the "World Summit on the Information Society."

Concerning one of the key issues on fundraising, members of the Bureau proposed partnerships with the private sector, especially technology companies, making sure their interests do not take precedence over the common good. A rapprochement with Samsung was included in this frame.

Among projects of the working groups are: "Measuring information societies" and "Best practices in using information for development".

In 2008,³¹ the meeting of the Bureau and the Intergovernmental Council was held with suggestions for ongoing projects.

1.5 Fifth Session of the Intergovernmental Council of the IFAP

In the 5th regular meeting on the 22nd to 24th of April, 2008, the Council recommended minimal corrections to the IFAP Strategic Plan 2008-2013, also it was suggested that they maintain a constant measurement of indicators of information literacy with the support of IFAP and the Institute of Statistics of UNESCO. The members that were elected to be part of the Board are detailed in the following table:³²

²⁹ Bureau del Consejo Intergubernamental IFAP. "Seguimiento a los proyectos del IFAP"
Portal UNESCO2007: 1-22. UNESCO. 7 Oct 2013

http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CI/CI/pdf/ifap12_follow_up_projects.pdf

³⁰ Bureau del Consejo Intergubernamental IFAP. "Comités Nacionales IFAP"
Portal UNESCO2007: 1-9. UNESCO. 7 Oct 2013

http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CI/CI/pdf/ifap12_national_committees.pdf

³¹ Consejo Intergubernamental IFAP. "Reporte Final Catorceava Reunión del Bureau"
Portal UNESCO2008: 1-8. UNESCO. 13 Oct 2013

http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CI/CI/pdf/ifap14_final_report.pdf

³² Consejo Intergubernamental IFAP. "Miembros Electos Consejo IFAP Quinta Reunión"

	Members States elected from 31 st to end of 32 nd session of the General Conference (2001 - 2003)	Member States elected from 31 st to end of 33 rd session of the General Conference (2001 - 2005)	Members States elected from 32 nd to end of 34 th session of the General Conference (2003 - 2007)	Members States elected from 33 rd to end of 35 th session of the General Conference (2005 - 2009)	Members States elected from 34 th to end of 36 th session of the General Conference (2007 - 2011)
Group I	Canada France Sweden	Germany Spain	Austria* Belgium France*	Canada Germany	Austria France Israel
Group II		Belarus Russian Federation Slovakia		Czech Republic Hungary* Poland	
Group III	Brazil Colombia Peru ²	Cuba	Uruguay Venezuela Peru	Jamaica*	Brazil Grenada Venezuela
Group IV	India Philippines New Zealand	China Japan	Indonesia Iran New Zealand*	China* Indonesia	DPR Korea Thailand Viet Nam
Group V (a)	Cameroon Madagascar United Republic of Tanzania	Benin Nigeria Zimbabwe	Cameroon Madagascar Angola	Congo Ethiopia United Republic of Tanzania*	Kenya Nigeria Côte D'Ivoire
Group V (b)	Bahrain	Iraq Mauritania	Tunisia	Egypt Sudan*	Libya

Present composition of the Council

Figure 2: Members of the IFAP Council Fifth Session of IFAP
Source: UNESCO

1.5.1 IFAP Strategic Plan 2008-2013

The 2008-2013 strategic plan main goal was, “to assist Member States to develop and implement national information policies and knowledge strategies in a world increasingly ruled by information technology.”³³

An account of the achievements to date was made; results of an analysis conducted in 2006 were performed as follows:

- a) Creation of an intergovernmental framework
- b) Creation of National Committees
- c) Publications in the area of specialization of the IFAP
- d) Support in the implementation of policies and instruments
- e) IFAP Bureau Development specialists and consultants
- f) Organization discussions between NGOs, states, and other representatives

Portal UNESCO2007: 1. UNESCO. 16 Oct 2013

http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CI/CI/pdf/ifap2008_member_states_election.pdf

³³ Consejo Intergubernamental IFAP. "Reporte Final Quinta Sesión"

Portal UNESCO2008: 1-13. UNESCO. 16 Oct 2013

http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CI/CI/pdf/ifap2008_final_report.pdf

The work of the members of the Council and Bureau was highlighted; the need to create a program with greater empowerment and resources was emphasized. So the following key activities were proposed to achieve its mission:

- a) Develop and maintain an observatory on policies and strategies.
- b) Work on 5 priority areas: information for development, information literacy, information preservation, ethics and information, accessibility of information.
- c) Focus on human rights and information, as proposed at the World Summit of Information, known as WSIC.
- d) Be actively involved in discussions on the Information Society.
- e) Support member states in maintaining or implementing a policy framework for information according to their particular needs.
- f) Better opportunities for cooperation with interested partners or members and obtain monetary donations.
- g) Improving the efficiency and effectiveness of IFAP
- h) Cooperate with the “Program for the development of communication” by UNESCO
- i) Create synergies with the Secretariat of UNESCO to achieve its objectives in the fields of communication and information.

1.6 Sixth Session of the Intergovernmental Council of the IFAP

Prior to the sixth session of the Intergovernmental Council, Bureau meetings occurred. For 2009,³⁴ efforts were focused on fundraising; the Bureau asked Council members to increase the contribution to the IFAP Fund in order to approve even more projects. In addition, a "Code of Ethics for the Information Societies" to be prepared by the assigned work group was proposed.

An example of efficient fundraising was exhibited by the Director of the Division of Economic Development of UNESCO on the “Program for the development of communication,” which have grant agreements until 2011 for a total of \$3.6 million.

³⁴ Bureau del Consejo Intergubernamental IFAP. "Reporte Final Quinceava Reunión" Portal UNESCO2009: 1-10. UNESCO. 20 Oct 2013
http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CI/CI/pdf/ifap15_final_report.pdf

The IFAP report was presented at the 182nd meeting to the Executive Board of UNESCO.³⁵ At the 16th³⁶ Bureau meeting, comments generated around the project were discussed. Members of the Executive Council supported the objectives of the IFAP but were concerned about the amount of resources needed to meet them. The IFAP requested financial support in hopes that their application would be approved in a timely manner.

The sixth meeting was held from the 29th to the 30th of March 2010, with the selection of new members.

In two years, they worked on the lines of action proposed by the strategic plan through the following activities (detailed mainly activities on Latin American countries):³⁷

- a) **Support to states for the creation and implementation of policies and strategies for information:** Creation of the “National Policy Guide for the Information Society,” creation of a virtual observatory for the Information Society.
- b) **Working Groups:** The group for preserving information contributed to the creation of the document “National Policy Guide for the Information Society” in chapter preservation.
- c) **National Committees:** First Consultative Meeting of National Committees in 2008, creation of the “Guidelines for the Establishment and Operation of National Committees”
- d) **Contribution to the overall objective of information for all:** Workshop “Developing literacy skills” developed in the Caribbean.
- e) **Debate on promoting and monitoring the WSIS action lines:** Attendance by Bureau members at the meeting for the implementation of WSIS action lines.
- f) **Relations between UNESCO and IFAP:** Creation of a model of cooperation among states.

³⁵ Consejo Ejecutivo UNESCO. "Decisiones Adoptadas en el Consejo Ejecutivo en su 182ava Reunión" Portal UNESCO2009: 23. UNESCO. 20 Octubre 2013
<http://unesdoc.unesco.org/images/0018/001861/186172s.pdf>

³⁶ Bureau Consejo Intergubernamental IFAP. "Reporte Final Dieciseisava Reunión" Portal UNESCO2010: 9. UNESCO. 20 Octubre 2013
<http://unesdoc.unesco.org/images/0018/001872/187224e.pdf>

³⁷ Consejo Intergubernamental IFAP. "Reporte Final Sexta Sesión" Portal UNESCO2010: 1-11. UNESCO. 4 Noviembre 2013
<http://unesdoc.unesco.org/images/0018/001870/187072e.pdf>

- g) **Efficiency and Effectiveness of IFAP:** At the time, China was the only country that has made annual monetary contributions of \$ 20,000; implementation of annual survey of the work of national committees that best contribute to the promotion of the Information Society in the areas of action and as interested members (including strategic partners, and other member states), cooperation between the Bureau and the Secretariat of UNESCO to work for the goals of information.

1.7 Seventh Session of the Intergovernmental Council of the IFAP

The seventh session of the Council was held from April 2nd to 3rd, 2012, with all members present:³⁸

Austria	Belgium	China	Colombia
Congo	Ethiopia	Granada	Indonesia
Iran	Israel	Kazakhstan	Kuwait
Latvia	Madagascar	Mali	Mongolia
Nigeria	Peru	Philippines	Russia
Oman	Ukraine	U.A.E.	Uruguay
Tanzania			

In the five areas of action presented, only 3 major advances occurred.

- a) **Accessibility Information and Information for Development:** Creation of a Virtual Library policy on Latin America (including Ecuador), development of the project “Access to Information, Accountability and Transparency in the Andean Region.”
- b) **Information Literacy:** Workshop on ICT literacy in the information network of Asia and the Pacific (APIN)
- c) **Information and Ethics:** International Meeting for working on the WSIS action line with the theme “cyber-ethics and information ethics.”

³⁸ Consejo Intergubernamental IFAP. "Reporte Final Séptima Sesión" Portal UNESCO2012: 2-12. UNESCO. 7 Nov 2013
<http://unesdoc.unesco.org/images/0021/002197/219769e.pdf>

Below are listed the activities held among the strategic plan:

- a) **National Committees:** First National Conference of IFAP to the English- and Dutch-speaking Caribbean states, regular exchanges between National Committees.
- b) **UNESCO and IFAP:** Counseling by members of the Bureau and the Council to the UNESCO Secretary for financial support of this project.
- c) **Working Groups:** The workgroup for information preservation worked in 4 proposals not included in the strategic plan of the biennium due to budget issues, the group of ethics and information worked on improving the “Code of Ethics for Information” to be presented in executive session of the UNESCO, the group of information for development work with a national committee in Kuwait, the group of access to information worked in Madagascar and the group of information literacy held the 1st forum on the topic in 2011.

Among the various issues that were discussed, the new funding provided by the secretary of UNESCO for the implementation of projects in the amount of U.S. \$ 492,000 was reviewed. Also, they worked on the new 2014-2021 strategic plan.

2. Ecuador and UNESCO

Ecuador has been a member of UNESCO since January 22nd, 1947, with 10 UNESCO’s conventions ratified, 10 with accession, and 3 of acceptance.³⁹

In 1983, Ecuador was established as the Regional UNESCO Office for Latin America Communication, working in parallel with the offices of the UNESCO Representatives to Colombia and Ecuador. Between 1998-2001 Ecuador returned to play only the role of representation for these countries (Colombia and Ecuador), and the communication office moved to Panama. A year later, Panama lost the seat and it moved back to Ecuador, with the new name of “Regional Office for Information and Communication

³⁹ UNESCO. "Información Oficial Ecuador. "Portal UNESCO. 2013. UNESCO. 15 Nov 2013
<http://www.unesco.org/new/es/unesco/worldwide/unesco-regions/latin-america-and-the-caribbean/ecuador/>

for Latin America” which also served as a multi-country office to the states of the Andean region: Ecuador, Colombia, Bolivia, and Venezuela.⁴⁰

2.1 Ecuador and the IFAP

The IFAP was established in 2001, until the 7th Intergovernmental Council Meetings held on 2012, Ecuador has not been a member of it. Meanwhile the neighboring countries of Peru, Colombia, and Venezuela have been involved on the board.

The first activity conducted in Ecuador under the IFAP Program was carried on at Quito during the month of April in 2003. It was the “First Seminar on Virtual Universities in Latin America and the Caribbean,” with a participation of 40 international exhibitors.

The convention was given once some results of the Monitoring Program on Higher Education in Latin America and the Caribbean developed by the International Institute of UNESCO for Higher Education in Latin America and the Caribbean (IESALC) were analyzed. 15 national profiles (including research from Ecuador) were given to determine the current situation, trends, and prospects.⁴¹

Strategies for better results and more efficient methods of virtual universities in the region were raised. As for Ecuador, *Universidad Técnica Particular de Loja* was selected as the coordinator center for core quality standards.

Of the seminar, after a unanimous decision, the “Declaration of Quito on the Role of Universities in the Information Society in Latin America and the Caribbean” was adopted (Appendix Declaration).⁴² The initiative at a time was part of the WTSIS and the follow-up meeting of the International Summit on Higher Education.

⁴⁰ UNESCO. "Oficina de Quito UNESCO "Portal UNESCO. 2013. UNESCO. 15 Nov 2013
<http://www.unesco.org/new/es/quito/about-this-office/>

⁴¹ SILVIO, José. RAMA, Claudio. LAGO María Teresa. "Tendencias de la Educación Superior Virtual en América Latina y el Caribe."

La educación superior virtual en América Latina y El Caribe. México: IESALC, 2004. 4.

⁴² IESALC y ORCILAC. "Declaración de Quito sobre el Rol de las Universidades en la Sociedad de la Información"

Grupo de Tecnología Educativa 2003: 1-3. UNESCO. 19 Nov 13
<http://tecnologiaedu.us.es/nweb/htm/pdf/quito.pdf>

In 2002, trainings on CDS / ISIS in Ecuador were held; and in 2004 the course “Creating Rural Tele-centers” in Ecuador, Mozambique and Uganda was given.

For 2006, the project “E-government Model for World Heritage Cities” in Cartagena, Cuzco, and Quito was carried out; thanks to the financial contribution of the Spanish government with a total allocation of \$601,762; (the largest IFAP project approved that year.)

In Quito, the project was carried out under the auspices of the Ministry of Public Administration of Spain and the joint work of the Municipality of Quito and UNESCO.

A second phase was carried out in 2010-2012 with a draft on “Access to Information, Accountability and Transparency in the Andean Region” conducted by the UNESCO Office in Quito and in collaboration with the Ministry of Telecommunications.

3. Conclusions

The UNESCO IFAP Program was created as a platform for international debate to promote actions that facilitate the development of the states through the access and correct use of information and current technologies.

One of the main achievements since its origins in 2000 was to support the creation of legal regulations implemented in several states on the Information Society and its impact on development. Furthermore, the establishment of national committees allowed a more efficient project planning according to the specific needs of the states work.

However, within the General Conference of UNESCO some weaknesses were identified in achieving the objectives of IFAP, project financing being a major problem. Management should be performed by members through partnerships with private companies. This monetary limitation has stalled several program initiatives.

In the case of Ecuador, 2 projects were approved by the funds obtained from the Government of Spain. We will analyze their actual contribution to the country's development in later chapters.

The challenge for the IFAP in coming years will be to create synergies with other UNESCO programs such as the Communication Program. In order to make further progress in the 5 areas of responsibility it was determined that the Bureau will have to obtain funds in order to achieve the goals of the program. It is possible that the creation of more national committees could facilitate this work.

Chapter Two: Projects IFAP Program Developed in Ecuador

1. Phase One IFAP Project: Model of E-Government for World Heritage Cities

According to UNESCO: “E-government is defined as the use of information technology and communication (ICT) to improve information and services offered to citizens, help the efficiency and effectiveness of public management, and increase public sector transparency and citizen participation.”

Under the IFAP program, the project “E-Government Model for Heritage Cities” was approved by the Bureau in March 2004 and funds were allocated in December 2005. Implementation was expected in these regions: Cuzco, Quito, and Cartagena; with funding coming from the Ministry of Public Administration of Spain (\$601,702⁴³ allocation) and with a duration of four years.

The project proposes to build local e-government models adapted to the needs of each city, considering its status as heritage cities.

Once the project was approved, the approaches were done through a memorandum that leads to the signing of the cooperation agreement.

1.1 Electronic Government: Importance and Objectives

The development of the Information Society and Knowledge occurs rapidly, which requires the State to modernize, through the application of new innovations in information technology and communication services for citizens. The final report on the

⁴³ Bureau del Consejo Intergubernamental IFAP. "Seguimiento a los proyectos del IFAP" Portal UNESCO2007: 1-22. UNESCO. 7 Oct 2013
http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CI/CI/pdf/ifap12_follow_up_projects.pdf

“E-government Model for Heritage Cities” refers to the benefits of the proper application of e-government in a state or region:⁴⁴

- a) To bring closer national, local and municipal governments to people.
- b) To improve access to public information
- c) To simplify obtaining documents and making payment arrangements.
- d) To provide long-term solutions
- e) To generate useful information for planning the various areas of public management
- f) To optimize the internal operational capacity of institutions
- g) To set standards in the use of public information
- h) To develop a reengineering process in government institutions
- i) To promote legal frameworks and a long-term plan development
- j) To promote the use of ICT among citizens
- k) To build transparency and citizen participation in governance
- l) To develop constant innovation in services and administrative processes.
- m) To reduce operative costs
- n) To improve the quality of basic services
- o) To have a more efficient land and improve soil knowledge
- p) To promote accountability and strengthen democracy

1.2 Background

To have a better understanding of the contribution of the project, one must meet the initiatives arising from the MDMQ on Electronic Government and the legal framework that underpins it since 2000, as well as the country's situation on access and use of ICTs in a chronological and temporal context in which the project applies.

⁴⁴ UNESCO. Resumen de Actividades 2006 -2008 Proyecto Modelo de Gobierno Electrónico para Ciudades Patrimonio.
Quito: Oficina de la UNESCO en Quito, 2009.

1.2.1 Access and use of ICTs in Quito and Ecuador in 2006

In 2006, there were no official figures on information technology in Ecuador, so we will be using as reference the derived approximations made by local and international organizations. The lack of data is a symptom of insipience is the use of technology communication in the country, and mainly for the challenges that came up with the Information Society new era.

According to Internet World Stats, in the early century, Ecuador had 180,000 Internet users, for a national total of about 2,090,804.⁴⁵ It represents a 1.46%, while for 2005 there were 624,600 users, representing 5.2%.

We must take into consideration that in late 2005 the country with the highest level of internet penetration was New Zealand with 76.3%.

Country	Population (Est. 2005)	Internet Users (2000)	Internet Users (Current)	% Penetration	% regional users	Growth (2000-2005)
Argentina	37,584,554	2,500,000	7,500,000	20.00%	15.40%	200.00%
Bolivia	9,073,856	120,000	350,000	3.90%	0.70%	191.70%
Brasil	181,823,645	5,000,000	22,320,000	12.30%	45.90%	346.40%
Chile	15,514,014	1,757,400	5,600,000	36.10%	11.50%	218.70%
Colombia	45,926,625	878,000	3,585,688	7.80%	7.40%	308.40%
Ecuador	12,090,804	180,000	624,600	5.20%	1.30%	247.00%
Guayana Francesa	194,277	2,000	38,000	19.60%	0.10%	1800.00%
Guyana	877,721	3,000	145,000	16.50%	0.30%	4733.30%
Paraguay	5,516,399	20,000	150,000	2.70%	0.30%	650.00%
Perú	28,032,047	2,500,000	4,570,000	16.30%	9.40%	82.80%
Surinam	460,742	11,700	30,000	6.50%	0.10%	156.40%
Uruguay	3,251,269	370,000	680,000	20.90%	1.40%	83.80%
Venezuela	24,847,273	950,000	3,040,000	12.20%	6.30%	220.00%
TOTAL Sudamérica	365,195,887	14,292,100	48,633,288	13.30%	100.00%	240.30%

Figure 3: Internet Access Statistics South America 2000-2005

Source: Internet World Stats

The National Telecommunications Council (CONATEL) and the Superintendence of Telecommunications (SUPTTEL) present figures that differ, so we will rely on the data produced by the study “ICT and competitiveness in Quito” which includes projected users of cybercafés and tele-centers.

⁴⁵ INDEX MUNDI. "Ecuador Perfil." INDEXI MUNDI. 2013. INDEXI MUNDI. 24 Nov 2013
http://www.indexmundi.com/es/datos/2000/ecuador/poblacion_perfil.html

Dial Up Users	252,796
Corporate Users	520,584
Cybercafé Users	114,810
Total	887,790

Figure 4: Internet users in Quito

Source: Study "ICT and Competitiveness in Quito 2007"

Optimistic, average and pessimistic scenarios were projected to analyze Internet penetration in MDMQ. In the pessimistic, it only takes into account the level of national penetration, in the average scenario an average is calculated between the pessimistic and optimistic, while the optimistic hypothesis take into account "cybercafés" distribution by province.⁴⁶

Scenario	Internet Users	Penetration
Pessimistic	142.303	6.8 %
Medium	211.958	10.1 %
Optimistic	281.612	13.5 %

Figure 5: Calculation of Internet Users in the DMQ

Source: Elaborated by Santa Fe Associates

By the time, it was common to use "dial – up" technology (internet through telephone cable), the average connection speed according to the study "Quito and ICT" was 128Kbps.

Dedicated connections represent a minimum percentage of the total internet connections but a high level of growth for the near future is planned.

1.2.2 Legal Framework 2000 – 2006

1.2.2.1 National Framework

By the beginning of the century, the Ecuadorian State, through the National Telecommunications Council (CONATEL) and with resolution 379-17, proposed the

⁴⁶ CONQUITO. "Las Tecnologías de la Información y las Comunicaciones en Quito 2007" Imaginar2007: 47-61. IMAGINAR. 26 Nov 2013
http://www.imaginar.org/docs/TIC_Quito_Competitividad.pdf Estudio Quito y TIC

“Declaration on Universal Access to Telecommunications Services” as a first step in its commitment to provide telecommunication services to the population; and an economic, political, cultural, and social development based on access and use of ICTs.⁴⁷

The following year at the Summit of the Americas 2001, held in Quebec, it was proposed the “Agenda of Connectivity for the Americas”⁴⁸ in order to create an instrument that establishes a framework for action and commitments for states to be inserted and actively participate in the new Information Society.

One of the commitments is to create an action plan for each state, with strategies and procedures adapted to their reality. Ecuador created its connectivity agenda in August 2002 and established decree No.3393 as a priority policy in November 27, 2002,⁴⁹ through the Connectivity Commission created for this purpose. Within the priority areas of intervention are established: connectivity infrastructure, tele-Education, tele-health, eGovernment and eCommerce.

In May 2004, the Transparency Law for the Public Administrations was approved to democratize citizen participation and promote accountability clearly and precisely by public officials, endorsing the principle of disclosure of information. Unlike the state decrees and policies mentioned above, this is the first time a legal framework provided for punitive actions on faults related to public information transparency.

⁴⁷ JURADO, Romel. “Diagnóstico de las Políticas de TIC en el Ecuador”

FLACSO2005: 47. FLACSO. 27 Nov 2013 http://www.flacso.org.ec/docs/diagnostico_tic.pdf

⁴⁸ Comisión Interamericana de Telecomunicaciones “Agenda de Conectividad para las Américas. Plan de Acción Quito.” Organización Estados Americanos 2003: 1-49. Organización Estados Americanos. 27 Nov 2013 <http://portal.oas.org/LinkClick.aspx?fileticket=kDmcx5eKyBE%3D&tabid=413>

⁴⁹ JURADO, Romel. “Diagnóstico de las Políticas de TIC en el Ecuador”

FLACSO2005: 47. FLACSO. 89 Nov 2013 http://www.flacso.org.ec/docs/diagnostico_tic.pdf

1.2.2.2 Legal Framework Metropolitan District of Quito

In October 2005, the “Municipal Ordinance Regulating the use of Information, Technology and Communication in the MDMQ” was incorporated in Title II of Book I of the Municipal Code.⁵⁰

1.2.3 Electronic Government Initiatives for the Municipality of Quito before 2006

1.2.3.1 Quito Digital

In July 2004, with Municipal Ordinance 3531, was approved the “*Plan Equinoccio Siglo XXI*,” a strategic plan initiative of the Mayor, debated and agreed upon by various representatives of civil society in the city of Quito. It focuses on the main axis of city development: economic, social, territorial, and political.

Within the economic axis and the innovation program was created “Quito Digital”, a project that states that information technologies are an essential part of the modernization process. Note that in April 2003 the project had already started, with the cooperation of CONATEL, UNESCO, Andinatel, Escuela Politécnica Nacional, and the Agencia de Conectividad. Quito Digital intends to work on 5 projects: Digital Government, Cybernarios, Educa-Net, and Internet and Digital Memory for All.

- a) Digital Government: Searching for universal ICTs through its use at two levels: management of public administration and citizen participation.
- b) Cybernarios: Creating public centers for training and use of ICTs, located in the zonal administrations of MDMQ
- c) Educa - Net: Using ICT for learning, training and research in the mission and municipal schools.
- d) Digital Memory Preservation, conservation and promotion of heritage and cultural heritage of Quito.
- e) Internet for all: Extending the coverage and accessibility of ICT, promotion for home and business use.

⁵⁰Municipio del Distrito Metropolitano de Quito. "Ordenanza No. 159 Tecnologías de la Información" Portal Municipio de Quito2005. MDMQ. 29 Nov 2013
http://www7.quito.gob.ec/mdmq_ordenanzas/Ordenanzas/ORDENANZAS%20A%C3%91OS%20ANTERIORES/ORDM-159%20-%20TECNOLOGIAS%20DE%20LA%20INFORMACION%20Y%20COMUNICACION.pdf

In the sense that concerns us, Quito Digital is the first program of the city proposed as a model of e-government.

1.3 Proposal: E-Government Model for Heritage Cities

1.3.1 Objective

The Regional Office of Communication and Information for Latin America and the Caribbean (ORCILAC) proposes the creation of an e-government program for heritage cities in order to promote democratic governance, transparency, and access to information and public participation through ICTs.

1.3.2 Origin and Justification

Several circumstances determined the success of the launch of the "E-Government Model for World Heritage Cities" project. The main ones being in chronological order:

- a) In 1998, UNESCO provided technical assistance for the implementation of an e-government program in Mexico. To date (2003), it was one of the states with the greatest advances in this area, an example of success in this field by the international body.
- b) Since 2003, UNESCO expressed its willingness to cooperate with the Quito Digital program, promoted by the Municipality of this city.
- c) In 2003, ORCILAC, together with the United Nations Program for Development (UNDP), supported the creation of the "Brotherhood American Heritage Cities of Mankind Network," consisting of 36 heritage cities of America with a view towards cooperation and facilitation experiences.
- d) Approaching UNESCO with the Latin American Association of Research Centers and Telecommunication Enterprises, who developed a model of a digital city that would serve as inspiration for the proposed program.
- e) With the support of CISCO Systems, a degree program on "Compute Network Technology" was implemented at the Universidad de los Andes (Mérida, Venezuela).
- f) Inauguration of the House of Spain in Cartagena of the Indies in 2003, home of the Center for Latin American Cooperation for the Andean countries. It is an important milestone in the history as UNESCO invites the Government of Spain to participate in the project.

- g) Sensitization missions to municipal and civil society representatives on e-government, conducted in late 2003 in Cuzco and Cartagena with excellent acceptance by those involved.

Given that funding would come from the Spanish Government, the 3 cities (Quito, Cusco, Cartagena) shall meet these requirements:⁵¹

- a) E-readiness rates superior to other heritage cities of the region.
- b) Considerable number of points of access to information, such as cybercafés.
- c) Tele-informatics infrastructure
- d) Status of heritage cities
- e) Cities and tourism potential to explode
- f) Political will
- g) Excellent relations with the Government of Spain

Once the cities were defined, the Government of Spain, through the Ministry of Public Administration, expressed its willingness to finance the project with \$601,702. Finally the initiative launched in late 2005 with the placement of funds for their implementation.

1.3.3 Proposed Activities

The table below shows a proposed plan of activities primarily for project implementation.⁵² When we analyze the implementation of the program, we will review the changes to the schema and its final results.

⁵¹ Bureau del Consejo Intergubernamental IFAP. "Matriz Proyectos IFAP"
Portal UNESCO2005: 6. UNESCO. 1 Dec 2013
[http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CI/CI/pdf/ifap/Funded%20IFAP%20Projects.p
df](http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CI/CI/pdf/ifap/Funded%20IFAP%20Projects.pdf)

⁵² Bureau del Consejo Intergubernamental IFAP. "Matriz Proyectos IFAP"
Portal UNESCO2005: 6. UNESCO. 1 Dec 2013
[http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CI/CI/pdf/ifap/Funded%20IFAP%20Projects.p
df](http://www.unesco.org/new/fileadmin/MULTIMEDIA/HQ/CI/CI/pdf/ifap/Funded%20IFAP%20Projects.pdf)

Activity	Sub-Activity	Responsable	Directed
Realization of Consulting Studies	A) Teleinformatics infrastructure and network access points	UNESCO - CISCO Technology Computer Networking	Cartagena, Cuzco, and Quito
	B) Study and design of e-government services	E-Government Team Government of Colima ORCILAC	Cartagena, Cuzco, and Quito
	C) UNESCO Chair Design of Electronic Government		One of the 3 heritage cities
	D) Model Design of E-Government for heritage cities	Government Electronic Equipment and Municipal Government of Colima	Cartagena, Cuzco, and Quito
Creating Address and Training Centre E-Government in Municipalities		Municipalities	
Training Courses	Course 1) For government officials	E-Government Team Government of Colima	Cartagena, Cuzco, and Quito
	Course 2) For facilitators at hotspots		
	Course 3) For journalists		
	Course 4) Second course for facilitators of hotspots		
Creation UNESCO Chair in e-Government		ORCILAC	One of the 3 heritage cities
Publication and distribution of E-Government Model Heritage Cities		ORCILAC	
Continuous Assessment and Regulation		ORCILAC	Cartagena, Cuzco, and Quito
Donor Visibility		ORCILAC and Municipalities	Cartagena, Cuzco, and Quito
Results and other material IFAP projects will be shared, increasing e-government services		ORCILAC	Cartagena, Cuzco, and Quito

Figure 6: Business Plan Project "Electronic Government Model for heritage cities"

Source: Projects IFAP UNESCO

1.3.4 Political Will

As background, we know that UNESCO assisted in the design and implementation of Quito Digital Project, an initiative of the administration of Mayor Paco Moncayo and it converged with the “E-Government Model for World Heritage Cities” adopted by the Intergovernmental Council of IFAP, launched officially on January 2006.

Andrew Radolf, Director of the United Nations for Latin America and the Caribbean and the Mayor of the City of Quito, General Paco Moncayo, reaffirmed their commitment to the development of Information Societies through acceptance of the “E-Government Model for Heritage Cities Program” implemented in the city of Quito on October 26, 2006 after signing the cooperation agreement.

1.3.5 Analysis of the Problem of Electronic Government in the MDMQ

In October 2007, the Latin American Faculty of Social Sciences (FLACSO) published the book “Andean Experiences Electronic Government: The issue of citizen participation” with a case study conducted by Belén Albornóz on Electronic Government versions implemented in the Municipality of Quito. We will take into account this study based on the temporal coincidence with the implementation of the “E-government Model for Heritage Cities Program” held in the MDMQ.

This study is based on exploratory and qualitative research that analyzes citizen participation, allowing us to know the stage of e-government at the time.

Given that e-government is a cause and consequence of technological development, access and use of the tools of information technology by citizens, Quito Digital project analyzes the proposed model of e-government in the city. However, considering that the project is in a documentary stage, we consider the website of the municipality to discuss the situation of e-government in the city of Quito. According to the author, the website is referred to as a second “model of e-government,” (used ambiguously. The website by itself could not be classified as a “model” e-government.)

1.3.5.1 Website Analysis of the MDMQ

The website of the Municipality (domain: www.quito.gov.ec) is analyzed in three areas:

- a) **Interface:** website design
- b) **Behind the interface:** status of e-government
- c) **In front of the interface:** public participation

Website design: The website analysis focuses on the site structure that leads to citizen participation. The site had a section called “Write to the Mayor,” that gives people the opportunity to convey ideas, complaints, or suggestions. According to the author, the website is qualified as a site with an objective statement, which aims to provide objective and reliable services and information to users, leaving relegated participation and interaction of citizens in the virtual platform.

Although in this context, the author does not consider the municipal law to encourage citizen participation since 2000, i.e. the Metropolitan Ordinance No. 046 that creates a Council formed by civil social actors.⁵³ Perhaps, the lack of tools for citizen participation in the web platform is not to avoid interaction with the community, as the author implies, but a technological ignorance for implementation. Both are subjective assessments, impossible to check under the temporal context.

State E-Government: The author uses the “Practical Guide for e-government: issues, impacts and perceptions,” developed by the Regional Policy Dialogue IDB for measuring the state of e-government in the city of Quito. This guide discusses the following:

⁵³ Municipio del Distrito Metropolitano de Quito. "Ordenanza No. 046 Del Consejo y sus Comisiones y de la Participación Ciudadana" Portal Municipio de Quito 2000. MDMQ. 1 Dec 2013
http://www7.quito.gob.ec/mdmq_ordenanzas/Ordenanzas/ORDENANZAS%20A%C3%91OS%20ANTERIORES/ORDM-046%20-%20PARTICIPACION%20DE%20LA%20COMUNIDAD.pdf

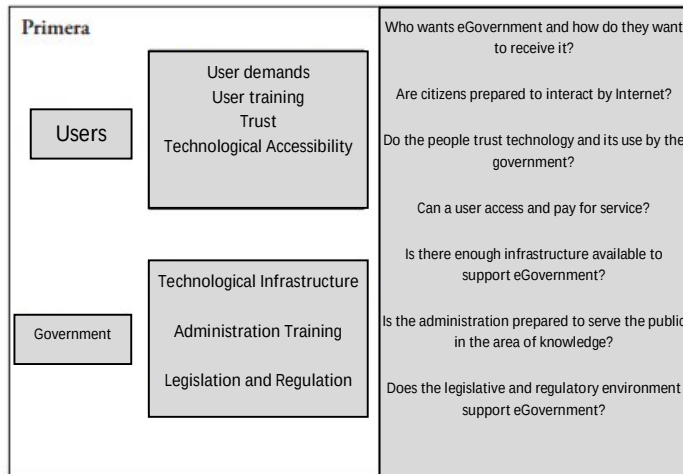


Figure 7: Practice Guide for e-government: issues, impacts and perceptions
Source: Regional Policy Dialogue of the IDB

Users:

User demands: In the city of Quito until 2005, there is no official data on Internet access, e-readiness or information generated through focus groups about the real interest of citizens on online services.

User capacity: User capacity is constrained to internet access, in the case of the city of Quito, as mentioned above, is 6.8% for 2005 (unofficial pessimistic scenario). There is no training campaign for the use of online services, but the 1% of the population uses queries on taxes and gets certifications from the platform.

Confidence: Within the web site some services that promote participatory democracy are proposed, but not completely. There is the option “Write to the Mayor” to present ideas, questions, or complaints concerning municipal service. However, the web platform doesn’t have other social tools for citizens.

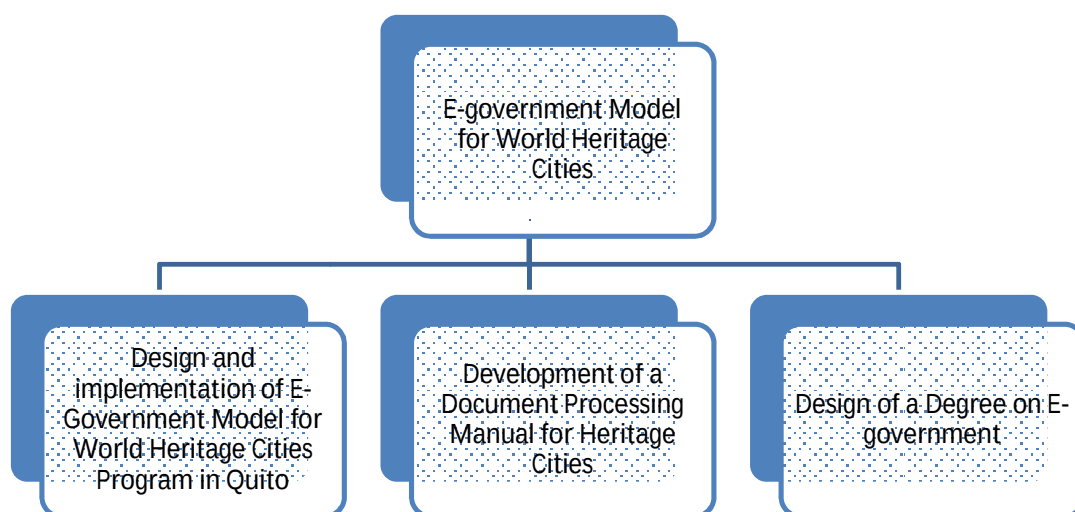
Technology accessibility: The pessimistic scenario is 6.8% of the population (unofficial data).

Government:

Technological Infrastructure and Public Administration Capacity: For 2005, the MDQM had 25 servers, 2600 PCs, 2 operating systems, 35% of staff with internet access, and 25% of staff with email.

1.4 Implementation of the "E-government Model for Heritage cities"

After analyzing the background, we will focus on the implementation of the “E-government Model for Heritage Cities.” The program worked in parallel on multiple components that complement the development of e-government in the MDMQ.⁵⁴



1.4.1 Design and implementation of E-Government Model in Quito

To start the program, "E-Government Model Heritage Cities" was based on a qualitative analysis on the current situation of the 3 municipalities. The whole process was carried out by the Mexican e-government experts Victorino Rodriguez and Dominic Zuniga Reyes Cortez.⁵⁵

⁵⁴ UNESCO. Resumen de Actividades 2006 -2008 Proyecto Modelo de Gobierno Electrónico para Ciudades Patrimonio.

Quito: Oficina de la UNESCO en Quito, 2009.

⁵⁵ UNESCO. Video para apoyar la implementación del Modelo de E-Gobierno 2007 Videocassette. Ecuador: QUITO, 2007.

Below we listed the 3 main components including the activities listed chronologically:⁵⁶

1. Training and Capacity Building

- a. Workshop “E-Government Model Colima / OAXACA Mexico: Case Study.” Quito - Ecuador
- b. Workshop for implementation of e-government services in local government - Colima / OAXACA - Mexico
- c. Online Services Diagnosis
- d. Institutional strengthening through the reform of the Metropolitan Plan for the use of Information, Technology and Communication.
- e. Design of the Electronic Government Model for Quito
- f. Workshop for facilitators about access points

2. Public Facilities

- a. Implementation of information access points (Kiosks).

3. Promoting citizen participation and governance model online

- a. E-Government Workshop for journalists
- b. E-government Guide for Teachers and Educational Multimedia
- c. Electronic Government Route: Access and Transparency

1.4.1.1 Training and Capacity Building

It is at this stage that was developed the model of e-government for Quito in collaboration with public employees and experts.

⁵⁶ UNESCO. Resumen de Actividades 2006 -2008 Proyecto Modelo de Gobierno Electrónico para Ciudades Patrimonio.
Quito: Oficina de la UNESCO en Quito, 2009.

1.4.1.1 Workshop “E-Government Model in Colima / OAXACA Mexico: Case Study”

On 8th and 9th February 2007, the first talk of training for municipal officials was issued, with the participation of the Mayor of the City and representatives of businesses, government, and corporations.⁵⁷

Victorino Rodriguez and Domingo Zuñiga Cortez, pioneers in implementing e-government in the city of Colima / Mexico, presented the applied model, technical information, and processes.

E-Government Model in the city of Colima

It is crucial for our analysis to understand the process conducted in Colima since it is the basis for the e-government model implemented in Quito.

To understand the “Colima Case” we refer to 1997 when the PRI candidate, Fernando Moreno Peña, won the elections and offered a new model of government more efficient and dedicated to the service to its citizens.⁵⁸

The problem was obvious and it was chaotic: poorly trained staff, delays in paperwork, long lines at service windows, missing and outdated processes, as well as illegal immigration to other countries.

At the head of this new process of government innovation through ICT, were academics with little government experience but extensive technical knowledge, particularly in technology applications for education profiles. They were part of the Administrative Office headed by Victorino Rodriguez, professor at the Universidad Estatal de Colima.

The new municipal government was ahead by 6 years of management according to law, so they prioritized to work on strategic areas according to the citizens more important requires.

A reengineering process was initiated 3 months before starting the administration in order to determine the “critical management issues” resulting from poor training of

⁵⁷ UNESCO. Video para apoyar la implementación del Modelo de E-Gobierno 2007. Videocassette. Ecuador: QUITO, 2007.

⁵⁸ MÁRQUEZ, María Teresa. El Efecto Colima: Ciudadanos, Gobierno y Tecnología. México: Editorial del Gobierno del Estado, 2003.

staff, repeated information between institutions, access problems, and outdated software. The new process flow determined training needs, access and software.

The proposed model was based on the premise that information is to provide basic services to citizens and is structured as follows:⁵⁹

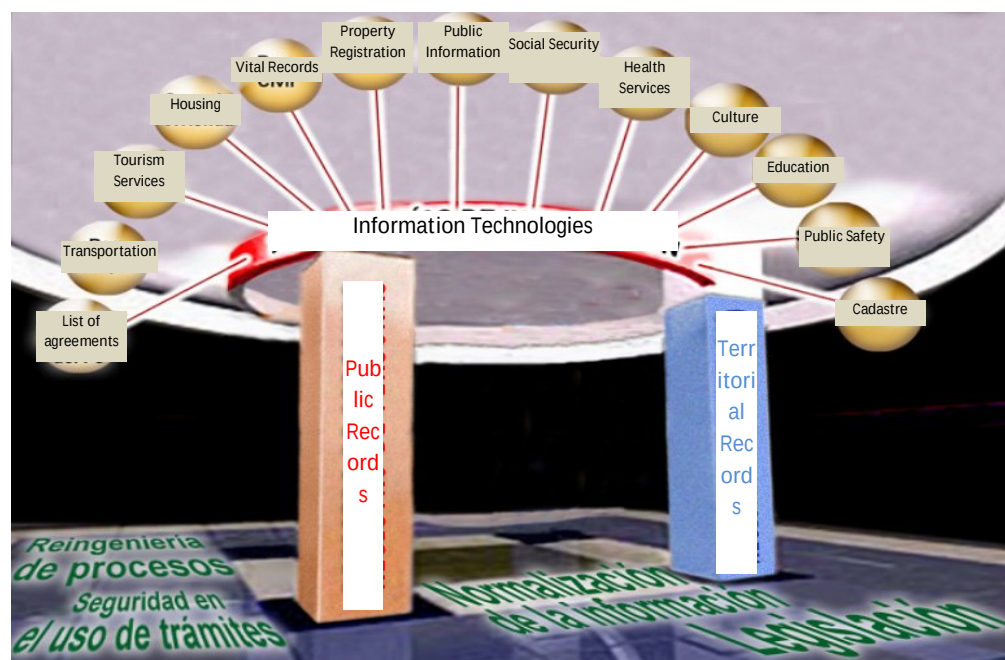


Figure 8: E-Government Model of the city of Colima
Source: Workshop Quito

The basis of the correct function of this model relies on the process flow between municipality institutions.

- A. **Standardization of information:** It is necessary to standardize the information provided by citizens to government entities. In Colima data was collected several times and generated problems, instead of working in a horizontal information model, the dynamic was vertical. The two main pillars of the standardization of information are registering people and territory.
- B. **Registration of Persons:** It is the starting point for a governance structure, with the registration of people we know who are demanding services, and it is here that the

⁵⁹ UNESCO. Video para apoyar la implementación del Modelo de E-Gobierno 2007. Videocassette. Ecuador: QUITO, 2007.

normalization scheme of information begins. The Civil Registrar is the first instance of registration (information remains stored in books in most cases).

One of the problems encountered in Colima is a misuse of the search tool, it only gave data for birth certificates carried by the date of registration, not by date of birth.

Adequately Systematized information serves the government to improve security services, planning, among others.

C. **Territory Registration:** Registration of land allows us to know where services are demanded by citizens. In Colima there are 3 elements:

- a) Legal registration, through the public registry of property.
- b) Cadaster (Municipal)
- c) Land Use (Municipal)

This information does not relate to each other; this is a problem as the 3 of them work separately and for different purposes. Information is not shared, it is used vertically.

In Colima, many of the agencies had information, including digitalized information, but neither was analyzed nor shared.

D. **Reliability of information:** Information is the basis of the services the government provides to citizens and need this to be reliable and secure, this is done through a blind capture technique to obtain the information twice for the system to verify the new capture with the previous and determine errors.

Benefits of a dynamic information system

To understand the importance of the system, real cases were analyzed in the state of Colima.

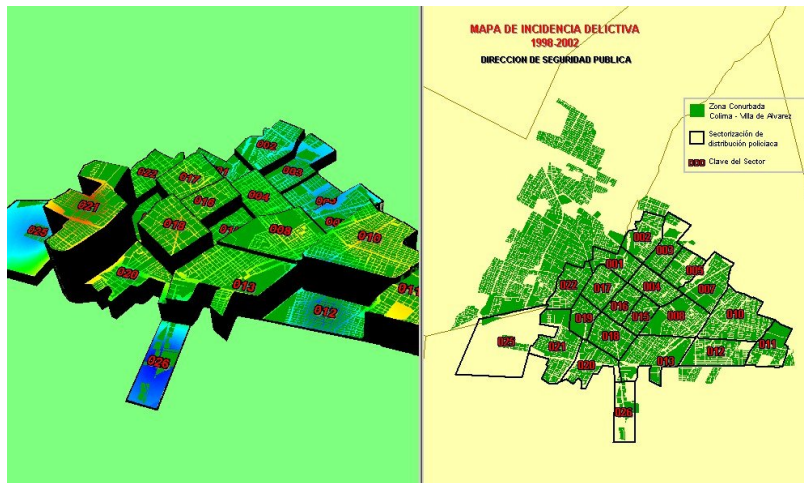


Figure 9: Crime rate in urban areas of Colima
Source: Workshop Colima

Standardization of data allowed them to know the areas with the highest crime rate of Colima, through key cadastral records and the registration of complaints made to the Police.

E. **Information Technology:** Once the information is standardized through the registration of persons and registration of land, they can use technology tools to deliver services to citizens. It is the work of technicians that determines the best technology solution for the needs of the city. The city of Colima has implemented several, some of them are:

- a) Panic Button: Within a panel, there is a panic button, geo-referenced at various points in the city.
- b) Results of laboratory tests: People carried samples to community medical centers, and through their fingerprint, they could check their results at the kiosks.
- c) Notice completion process: Once the processing of the citizen has been done by the municipal offices, a text message with a notification is sent to the person to go retrieve their documents.

Kiosks: The idea of kiosks comes from the personal experience of Domingo Zuñiga; using coin machines for video games. The pilot was conducted in a fair, each person who introduced a coin and its unique key received his or her birth

certificate. As of February 2007, there were about 20 kiosks in the city of Colima. There has been wide acceptance, which led the model to be replicated in other states of Mexico through the "Government Express" campaign.

After 2 years of implementation of the kiosks, the Colima state appeared as the least corrupt state after a survey by the government.

Scope of a state solution:

- Tax Payment on vehicle ownership
- Delivery and circulation card swap
- Driver License Renewal
- Delivery and exchange of license plates
- Sale of valued forms
- Endorsement of patent livestock
- State Careers
- Commercial, tourist and economic information
- Application utility

Payment, printing, and delivery of:

- Affidavit of single status
- Proof of no criminal record
- Birth certificates
- Marriage certificates
- Divorce Proceedings
- Death Records
- Encumbrance certificate
- Certificate of ownership

Scope of Municipal solution

Payment of:

- Property tax
- Parking fines
- Overtime for drinking places

- Traffic violations
- Violations of parking meters

Payment and printing of:

- Certificate of ownership of property and not only good
- cadastral reports
- Birth certificates
- Marriage certificates
- Divorce Proceedings
- Death Records
- Affidavit of single status

Promotion of E-Government in the city of Colima

Through advertising tools, citizens were invited to apply for a unique key and use the services through the kiosks. In addition, strategies were designed in schools for the training of use of e-government services.

Considerations for implementing a model of e-government

According to Victorino Rodriguez, the necessary elements to implement a program of e-government are:

- a) Ensure that the management team has sufficient enforcement authority.
- b) Embed a multidisciplinary team of e-government
- c) Establish mechanisms for citizen participation and the trade union
- d) Form trained and committed leaders
- e) Define standards for measuring and evaluating progress
- f) Planning and socialize results

1.4.1.1.1 Workshop “Implementation of e-government services in local municipalities”

From April 30th to May 4th, 2007, the workshop "Implementation of e-government services in local municipalities" was held in the city of Colima - Mexico with the participation of officials of the 3 municipalities. Those from Quito who attended were:

- Marco Ríos: Director of Information Technology of MDMQ
- Dr. Augusto Abendaño: Metropolitan Director of Education, Culture, and Sports
- Edison Mena and Mónica Jaramillo: Data processing specialists from the Metropolitan Information Technology Department
- Gonzalo Freile: Area Director of Technology INNOVAR.UIO

The workshop aimed to “provide technical and conceptual skills required to consolidate the shares of e-government and the implementation of E-Government Services in Local Governments in the three heritage cities.”⁶⁰

Topics covered in the workshop were:⁶¹

- a) Review of general concepts of e-government
- b) Model diagnostics for developing e-government
- c) Model for horizontal use of information for e-government
- d) Legal adjustments to the implementation of a model of e-government
- e) Software Applications
- f) Hardware Applications
- g) Monitoring the operation phase kiosk
- h) Image scanning and data capture
- i) Wireless Networks
- j) Methodology of implementation of e-government systems
- k) Institutional Strategy for implementation of e-Government services
- l) Practical experiences in implementing e-government systems.

⁶⁰ UNESCO. Ficha Programa Taller Colima. Quito. Oficina de la UNESCO en Quito, 2007

⁶¹ UNESCO. Resumen de Actividades 2006 -2008 Proyecto Modelo de Gobierno Electrónico para Ciudades Patrimonio. Quito: Oficina de la UNESCO en Quito, 2009.

1.4.1.1.2 Diagnosis for implementing e-government services in MDMQ

The study was conducted by Victorino Rodriguez and Dominic Zuñiga with a document that determined the services demanded by citizens of the 3 cities. In the case of Quito, they were:

Taxes and Miscellaneous Payments

- Information of all taxes
- Payments of taxes

Information queries

- Query for monitoring procedures

Transaction Services

- Issuance of all types of certifications and certificates
- Exchange of debt securities
- Sale of valued forms

Information Services

- Sites of interest
- Heritage Information
- Libraries and directories useful for citizens

Other services

- Request for on-demand services
- Recharging public transport card

1.4.1.1.3 Institutional strengthening through the reform of the Metropolitan Plan for the use of information technology and communication in the MDMQ

With Ordinance No. 236 of August 3th, 2007,⁶² a reform of the Metropolitan Regime for the use of information technologies and communication for the MDMQ was

⁶² Municipio del Distrito Metropolitano de Quito. "Ordenanza No. 236 Sustitución Régimen Metropolitano para Uso de las TIC" Portal Municipio de Quito 2005. MDMQ. 3 Dec 2013

approved, using the new model of e-government posed by the "E-government Model for Heritage Cities Program" of UNESCO.

Following the report of the Committee on Connectivity and Competitiveness, amendments were approved, primarily:

- a. The Metropolitan Plan for the use of information technologies in the MDMQ “establishes the regulatory framework to have interoperable and compatible systems in the generation and transfer of common information systems, among MDMQ agencies and legal entities constituted by this.”
- b. Delimitation of Principles to which the municipality respond in e-government issues
- c. Rights and duties of citizens in e-government issues
- d. Obligations of municipal administration on issues of e-government
- e. Creating CENTRAL GOVERNMENT ELECTRONIC UNIT as a dependency of the Metropolitan Mayor, which is responsible for the development and implementation of appropriate policies for e-governance, institutional, inter-institutional, long distance, and international.
- f. Zonal Nodes creation to implement e-governance in the zonal administrations, companies, municipal corporations, and foundations.
- g. Creating an Electronic Government Council chaired by the Mayor.
- h. Both the Communications and Social Dialogue and the Metropolitan Directorate of Information are subject to the e-government policies issued by the Central Government Electronics Unit.

- i. Creating the Municipal Information Technology and Communication Department

1.4.1.1.4 Design of E-Government Model for the MDMQ

With the creation of the Central Unit Electronic Government, the Municipality proceeded to develop the e-government model based upon information received in workshops in February and April and including components and guidelines from the “Quito Digital” project that envisaged a restructuring of e-government.

The General Director of the Unit was Marco Rios, who served previously as Director of Information Technology of the MDMQ, and also actively participated in the workshops by Victorino Rodriguez and Dominic Zuñiga, both in Quito and in the city of Colima.

In July 2008, they carried out a process of hiring a consultant providing scope for a quality management system customer oriented, this in order to obtain ISO 9001-2000 certificate.⁶³

Quito towards an E-Government

The e-government model of the MDMQ starts with a strategic plan for e-government dictated by the Electronic Government Unit which includes: process reengineering, safe use of process, standardization of information, and legislation.⁶⁴

⁶³ Municipio del Distrito Metropolitano de Quito. "TDR Unidad de Gobierno Electrónico para la contratación de un consultor de sistemas de calidad" SCRIBD2008: 1-12. MDMQ. 3 Dec 2013 <http://www.scribd.com/doc/60922056/TDR-Mejoramiento-Procesos-DMGE-CT-2-May-2008v3>

⁶⁴ Unidad de Gobierno Electrónico MDMQ "Gobernabilidad Electrónica 2008" Portal UTPL. 2008. Portal MDMQ. 8 Dec 2013 <http://memorias.utpl.edu.ec/sites/default/files/documentacion/gobernabilidad-electronica/utpl-gobernabilidad-electronica-2008-ponencia-4.pdf>

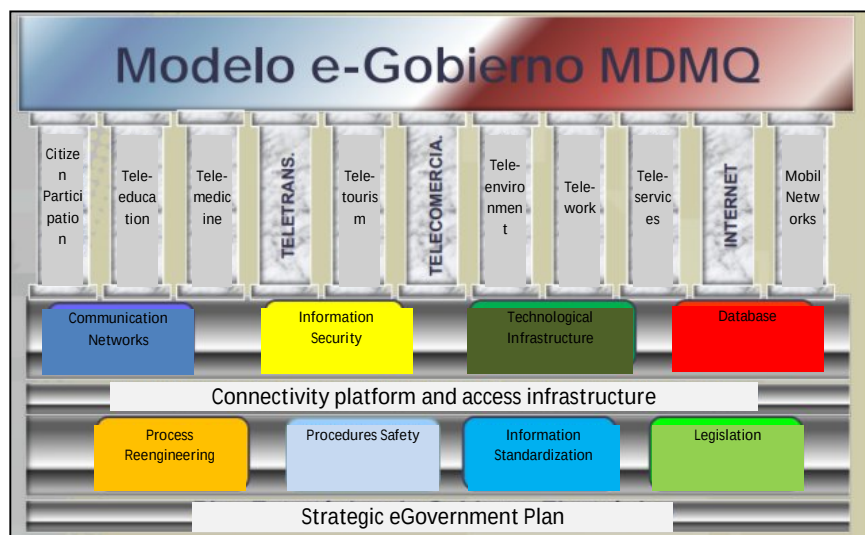


Figure 10: Model of Electronic Government of the MDMQ

Source: Central Electronic Government Unit MDMQ

E-Government Strategic Plan

Standardization of information: Information architecture focused on the citizen with a single data source that supplies municipal entities is proposed.

In this sense, we must understand that Colima began with the consolidation of data from civil registration of persons, but in Ecuador, the management of the entity belongs to the central government. In addition, for 2008, civil registration in Quito recently began its modernization process by changing facilities to *Av. Amazonas* and *Naciones Unidas*; the process of scanning files has not yet begun.⁶⁵

Standardization of data between EMAAP (Metropolitan Sewage and Potable Water) EMOP (Metropolitan Public Works Company) and EEQ (Electric Company of Quito) was prioritized.

⁶⁵ Ecuador Inmediato. "Autoridades buscan modernizar Registro Civil"
 Diario El HOY 8 Nov 2008: 1. Diario Ecuador Inmediato. 4 Dec 2013
http://www.ecuadorinmediato.com/index.php?module=Noticias&func=news_user_view&id=84857&u_mt=autoridades_buscan_modernizar_registro_civil

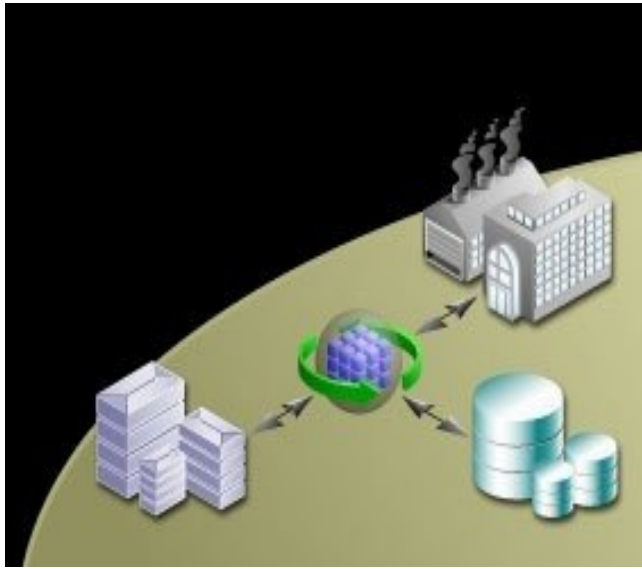


Figure 11: Information Transfer Model between EMOP - EEQ and EMAAP
Source: Quito Mayor Paco Moncayo Digital Presentation 2008

Safety procedures in usage: Platforms hosted on servers offer maximum security and internal control systems for fraud.

Legislation: The ordinances that support the process are:

- a) Metropolitan Ordinance 159, issued October 10, 2005 - Creating a Metropolitan Plan for the use of information technology.⁶⁶
- b) Metropolitan Ordinance 236, issued August 7, 2007 - Metropolitan Plan Amendment for the use of information technology.

Process Reengineering

Through the creation of a Metropolitan Data Center, the change in process flow with the design of a service oriented architecture began. All information on municipal entities would be available to be processed and standardized.

⁶⁶ Municipio del Distrito Metropolitano de Quito. "Ordenanza No. 159 Tecnologías de la Información" Portal Municipio de Quito2005. MDMQ. 5 Dec 2013
http://www7.quito.gob.ec/mdmq_ordenanzas/Ordenanzas/ORDENANZAS%20A%C3%91OS%20ANTERIORES/ORDM159%20%20TECNOLOGIAS%20DE%20LA%20INFORMACION%20Y%20COMUNICACION.pdf

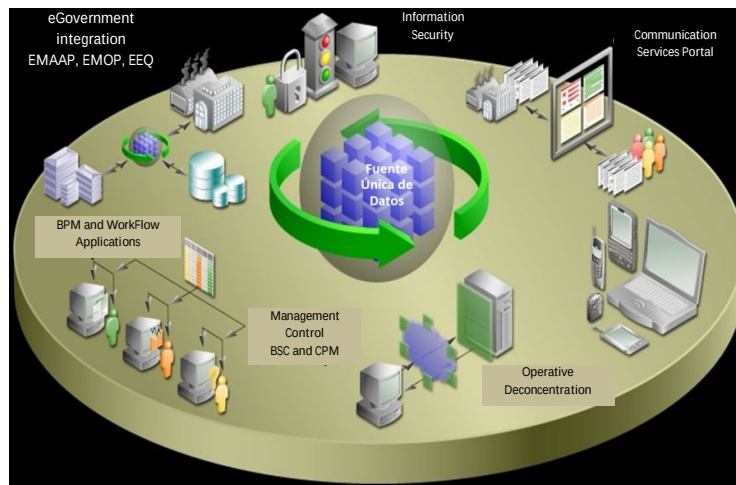


Figure 12: Services Oriented Architecture Proposal MDMQ 2008
Source: Electronic Government Unit MDMQ

BPM and Workflow applications: To manage processes, two coordinated systems are used. The BPM which controls the processes and systems and Workflow which is defined as “the process automation, in whole or in part, during which documents, information tasks (activities) are passed from one participant to another to perform an action, according to a set of rules or procedures.”⁶⁷

BSC Management Control and CPM: For the control of management, a Balance Score Card is used in order to measure results based on the strategic plan and the CPM for calculating time and project deadlines.

Decentralization Operation: With the installation of kiosks, call centers and strengthening services online through the portal seek to promote operational decentralization in municipal entities.

Connectivity Platform, Infrastructure, and Access

Communication Networks: Procedures to redesign the network with the extension of bandwidth, the unification of links and web hosting, and installing a fiber optic ring in 11 buildings of municipal entities was carried out, the process is still to be finalized in

⁶⁷ CABELLO, Manuel. "Sistema de Gestión de Procesos." Digital Learning. 2007. Digital Learning. 8 Dec 2013 <http://www.slideshare.net/dlearning/sistemas-workflowbps-gestin-de-procesos>

other establishments for the subsequent year (Final Report of the Annual Operating Plan [POA] 2008).⁶⁸

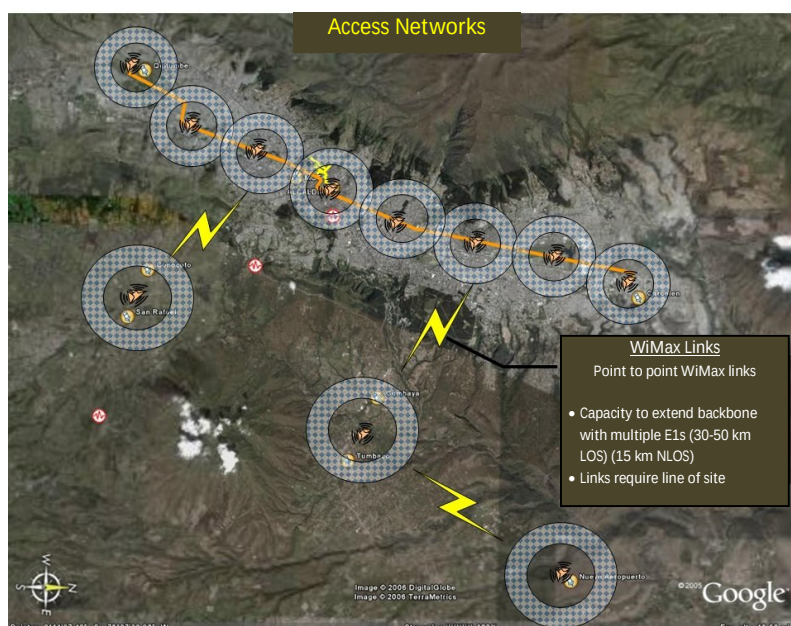


Table 13: Structure Access Networks MDMQ
Source: Final Report 2008 POA

Information Security: A security system with focus and emphasis in the Data Center of the Municipality is proposed.

Technological Infrastructure: The New Technological Architecture comprises:⁶⁹

- a) **DATA CENTER creation:** Construction of civil engineering and implementation with: two air conditioners, two UPS, raised floor system, 40 racks for equipment, fire detection and suppression, monitoring and alarms, structured cabling, and an intruder alarm system.
- b) **Hardware Infrastructure Implementation:** 2 central servers and blade servers, a 14 storage system, and SAN network.
- c) **No Mainframe Migration on Applications:** Licensing and cluster definition ORACLE, MS SQL server and DB migration Oracle, Microsoft Tuning.

⁶⁸ Municipio de Quito "Eje Institucional Evaluación POA 2008" MDMQ. 2008. Portal MDMQ. 8 Dec 2013 <http://www.quito.gob.ec/ley-de-transparencia/file/429-eje-institucional-evaluacion-poa2008>

⁶⁹ Unidad de Gobierno Electrónico MDMQ "Gobernabilidad Electrónica 2008" Portal UTPL. 2008. Portal MDMQ. 8 Dec 2013 <http://memorias.utpl.edu.ec/sites/default/files/documentacion/gobernabilidad-electronica/utpl-gobernabilidad-electronica-2008-ponencia-4.pdf>

- d) **Migrating IBM Systems 390:** 7,492 Programs, Data Protector, cluster definition, and Rehosting

Database: A single source of data is proposed through a single DATA Center and technology architecture, taking into account that for 2007 there were different databases and programming languages, three architectures: mainframe, internet/intranet, and C/S.

Citizen Services

Once the strategic plan is formulated on the e-government platform and connectivity infrastructure and access, proceedings to define the services to be provided to citizens through technology tools was implemented. In the case of MDMQ, these are:

- Citizen Participation
- Telecommunication
- Telemedicine
- Teletransportation
- Telecomercial
- Teleenvironment
- Telecommuting
- Teleservices
- Internet
- Mobile Networks

1.4.1.1.5 Workshop for facilitators of access points

Training for facilitators prior to execution of the “Transparency and Access Road Electronic Government” was performed. Six people received the methodology necessary to participate in the process. The training was conducted by the Directorate of Education, Culture and Sports, and the Urban Development Corporation of MDMQ (Innovate Quito).⁷⁰

1.4.1.2 Public facilities

1.4.1.2.1 Implementation of information access centers (Kiosks)

Implementing service kiosks was a practice adopted by the e-Government model of the city of Colima and fully adaptable to the reality of the MDMQ. Accessibility issues, coverage, and security were considered.

In the city of Quito, by the end of 2008, 17% of the total population of the province of Pichincha had internet access (INEC 2008 Report)⁷¹ as the installation of access points covering the needs of the majority population. (No internet access data from the city of Quito, only for the province of Pichincha)

Kiosk services⁷²

Citizens could access with their National identity card to:

- Tax information on municipal taxes
- Consultation of outstanding debts
- Cadastral Information

Without admission of an identity card, people received the following information:

- Information for museums

⁷⁰ UNESCO. "Resumen Ruta Acceso y Transparencia." UNESCO. 2009. UNESCO. 10 Dec 2013 http://www.unesco.org/archives/multimedia/index.php?s=films_details&pg=33&id=3182

⁷¹ INEC. "Estadísticas Tecnología e Información" INEC. 2008. INEC. 10 Diciembre 2013 http://www.inec.gob.ec/estadisticas/index.php?option=com_remository&Itemid=&func=startdown&id=1062&lang=es&TB_iframe=true&height=250&width=800

⁷² Municipio de Quito. Cartilla de Servicios Ruta de Gobierno Electrónico. MDMQ.2008

- Cultural Agenda
- Tourist Information
- Municipal Phone Book
- Procedures Guide

Location

The service kiosks were placed in 7 Zonal Administrations of the Municipality and 2 Trole-Bus stations: *Administración Zonal Quitumbe, Administración Zona Sur Eloy Alfaro, Administración Zona Centro, Administración del Valle de los Chillos* and *Administración Calderón, Estación el Recreo Trole Sur* and *Estación Trole Norte*.

1.4.1.3 Promoting citizen participation and governance model online

1.4.1.3.1 E-Government Workshop for journalists

In order to socialize the program with various actors in society, journalists were invited to participate in workshops. One was the Workshop Conference “Press Freedom in Quito.” The event was held with the support of the School of Communication at the Central University on May 5, 2008. According to the “Final Report of Activities 2006-2008 Electronic Government Model for World Heritage Cities” the purpose of the workshops was:⁷³

- a) Train journalists in the use of ICTs as tools of access to sources of information, the e-Government practices and new journalists in the information age.
- b) Promote the dissemination of good practice and experience between local press
- c) Promote the use of ICT as a source of information and daily working tool to perform journalism

⁷³ UNESCO. Resumen de Actividades 2006 -2008 Proyecto Modelo de Gobierno Electrónico para Ciudades Patrimonio. Quito: Oficina de la UNESCO en Quito, 2009.

- d) Establish networks of journalists, who gradually specialize in the use of ICT through training workshops on site and through participation in a series of teleconferences.
- e) Encourage the use of ICT as creative in addressing issues related to transparency and access to public information tools.

1.4.1.3.2 Creation Guide for Teachers and Educational Multimedia

In order to promote public awareness in the educational environment, they worked on the creation of the Multimedia Guide for Teachers and Education in the framework of the “e-Government model for heritage cities.” To propose the pedagogical model used with teachers through socialization workshops.⁷⁴

Two didactic resources were prepared: The Multimedia and the Guide for Teachers, in order to promote the learning of young people on e-government and citizenship. Both complement each other and potentiate the skills of teachers so as to use the appropriate methodology with students.

They started working with young people in 3 major themes: e-government, rights and access to public information, and citizen participation. The material was socialized in Municipal schools of the MDMQ.

1.4.1.3.3 Route E-Government: Access and Transparency

Electronic Government Route was a local initiative (MDMQ) in the framework of the "Model E-Government for World Heritage Cities." Augusto Abendaño, Director of Education, Culture, and Sports MDMQ; Lorena Mora, Director of Communications; and Gonzalo Freire, Director of the Urban Development Corporation of MDMQ; (Innovar UIO) jointly with UNESCO joined forces to make the project a reality. Its aim was to strengthen the program and socialize, making municipal activities more transparent and bringing information technology to support public servants.

⁷⁴ UNESCO. Guía Para Docentes y Multimedia Educativa. UNESCO, 2008

The activity took place from 24 October to 15 November in *cybernarios* (community tele-centers with computers and internet access created under the program Digital Quito) of the zonal administrations.

Through a caravan in a traditional “*Chiva Quiteña*,” the inhabitants of neighborhoods, senior citizens, and students of state and municipal schools were invited to be part of the “Route of Electronic Government.” The objective was to train approximately 800 citizens.⁷⁵

Once inside the *cybernarios*, the workshop was provided with a duration of 30 minutes, in which facilitators, through the website and access points, showed citizens how to use municipal services so citizens understand that access to information is a right guaranteed by law.⁷⁶

Citizens were informed of the different points of access to municipal information and services on the perimeter of MDMQ:⁷⁷

- a) **Quito Educa.Net:** The project initiated by the municipality, in order to improve the quality of education of the city of Quito Metropolitan Educational Network, created Quito-REMQ as a “center of knowledge, communication, and technical assistance to schools in the MDMQ.”
- b) **Museums and Libraries:** Reports on the ongoing process to provide museums and libraries in the city with internet access was given.
- c) **Service Balcony:** Service centers located throughout the city, mainly in the zonal administrations, provide ease in processing while managing the traditional model with officials managing processes.
- d) **Points of access to information (Transactional Kiosks):** Kiosks are part of the model implemented by UNESCO, where you can find the services provided on the municipal website in an interactive and easily accessible way.

This “digital literacy” in e-government issues ended with the delivery of a certificate and additional material.

⁷⁵ Dirección de Comunicación MDMQ. Estrategia de Cierre de Proyecto IFAP UNESCO. MDMQ, 2008.

⁷⁶ Cobertura Digital. “Gobierno Electrónico Quito va por el Modelo Ciudades Patrimonio de la UNESCO” Diario Cobertura Digital 10 Nov 2008: 1. Diario Cobertura Digital. 10 Dec 2013 <http://www.coberturadigital.com/2008/11/10/gobierno-electronico-quito-va-por-el-modelo-ciudades-patrimonio-de-unesco/>

⁷⁷ Dirección de Comunicación MDMQ. Material Ruta de Gobierno Electrónico: Acceso y Transparencia, MDMQ, 2008.

1.4.1 Desarrollo de Manual de Procesamiento Documental para Ciudades Patrimonio

As part of the proposed activities for the "Model of E-government for heritage cities," the promotion of modern libraries and museums in 3 cities was sought.⁷⁸ Later, a workshop was held on the "Document Processing Manual for World Heritage Cities."

The need for the process to be maintained over time was emphasized, as well as manual concepts and methodology of systematization for the sole purpose of bringing information to citizens.

Unlike other involved cities in the same program; in Quito, process automation and advanced document were its own software. However, integration using the program provided by UNESCO was proposed, WINISIS.⁷⁹

Since 2007, four workshops were held prior to the creation of the manual,⁸⁰ representatives from museums managed by the municipality (Interactive Museum of Science, Yaku Water Park Museum, City Museum, and Contemporary Art Centre) and the Municipal Library of Quito were in attendance:⁸¹

- Gina Acevedo
- Lili Aguilar
- Galo Almeida
- Maricela Alomoto M.
- Hugo Andrade P.
- Silvana Ayala

⁷⁸ UNESCO. "Manual de Procesamiento Documental para colecciones Patrimonio"
UNESCO2008: 1 -97. UNESCO. 11 Dec 2008

<http://unesdoc.unesco.org/images/0017/001781/178133s.pdf>

⁷⁹ UNESCO. Resumen de Actividades 2006 -2008 Proyecto Modelo de Gobierno Electrónico para Ciudades Patrimonio.

Quito: Oficina de la UNESCO en Quito, 2009.

⁸⁰ Diario El Comercio. "Patrimonio Urbes en un solo archivo"

Diario El Comercio 17 Julio 2008: 1. Diario El Comercio. 15 Dec 2013

http://www.elcomercio.com.ec/noticias/patrimonio-urbes-archivo_0_166783925.html

⁸¹ UNESCO. "Manual de Procesamiento Documental para colecciones Patrimonio"

UNESCO2008: 158. UNESCO. 11 Dec 2008

<http://unesdoc.unesco.org/images/0017/001781/178133s.pdf>

- Bernardina Bautista
- Ruby Benavides
- Sara Bolaños
- Ángel Calvache
- Paulina Calvachi
- María Teresa Carranco
- Humberto Cedeño
- Ana Lucía Delgado
- María del Carmen Elizalde
- Estela Gallardo
- José Miguel Gálvez
- Rosario Guerrero
- Guadalupe Hidalgo
- Leonardo Loayza C.
- Ana María López M.
- Lucía Maldonado G.
- Cecilia Miranda
- Leonardo Murillo
- Pedro Navas C.
- Bertha Novoa M.
- Gloria Añazco
- Raúl Pacheco P.
- Isabel Pérez
- Miriam Puebla
- Mayra Pullas
- Darwin Ramos
- Luís Revelo
- Luís A. Rivadeneira A.
- David Romero
- Germán Solano de la Sala
- Margarita Tufiño
- Grecia Vasco

- Teresa Vivar
- Mireya Yépez C.

The manual contains the following chapters:⁸²

- a) Basic Concepts
- b) Training Collections
- c) Document processing
- d) Matrices for Data entry
- e) Complete Matrices, by type of work
- f) List of descriptors for museum collections
- g) Names of Quiteño Art Works
- h) List of descriptors for cultural heritage collections

1.4.2.1 Socialization of Documentary Processing Manual for World Heritage Cities

Once the Document Processing Manual for World Heritage Cities was completed, it was the responsibility of the MDMQ to socialize with citizens and stakeholders of the Quito society. The event took place on September 12, 2008.⁸³

1.4.3 Design of Electronic Government

In order to involve all stakeholders in the process of e-government, a superior degree was developed in 3 cities on “Electronic Government” that should have been done through partnerships with educational institutions and issued as part of UNESCO.⁸⁴ The initiative failed to thrive.⁸⁵

⁸² Manual de Procesamiento Documental

⁸³ Dirección de Comunicación MDMQ. Estrategia de Cierre de Proyecto IFAP UNESCO. MDMQ, 2008.

⁸⁴ UNESCO. Resumen de Actividades 2006 -2008 Proyecto Modelo de Gobierno Electrónico para Ciudades Patrimonio.

Quito: Oficina de la UNESCO en Quito, 2009.

⁸⁵ UNESCO. Lista de Cátedras UNESCO. UNESCO, 2013

http://www.unesco.org/fileadmin/MULTIMEDIA/HQ/ED/UNITWIN/pdf/Doc_annexes/listchairs10092013_01.pdf

1.5 Conclusions and Results

In this section, we discuss the results of the project in terms of the benefit they received from the implementation of this project, by both citizenship and the MDMQ from early 2007 to late 2008, the year which the program “Route of Government Address: Access and Transparency” ended. The success/failure of the program proposals for activities are explained above.

For results, we have contrasted the requirements provided by UNESCO to create a model of e-government with the progress made in MDMQ.

Requirement	Results of the MDMQ
Political will and responsibility of authorities.	From the signing of the cooperation program with Unesco by the Mayor Paco Moncayo to the creation of an Electronic Government Unit to guide the process.
Interest in sharing information among institutions	For 2007, The MDMQ and entities already in the process of digitization of information. With the implementation of the program model for Electronic Government MDMQ an information architecture focused on citizen services are designed. Through a single source of information, this is easily shared among institutions. The first municipal entities to integrate information were EMAAP, EMOP, and EEQ.
Diagnosis of electronic services	The diagnosis was conducted by specialists Victorino Rodriguez and Dominic Zuniga, who determined what were the services to which the MDMQ should point according to the needs of

	citizens.
Organization and implementation of information standards	The normalization / standardization of information began with the EMAAP, EMOP, and EEQ.
Training of officials	Workshops taught by specialists to municipal officials in charge of implementing e-government in the city of Quito.
Process Reengineering	New standards and methodologies in information processes were implemented.
Legislation	Metropolitan Ordinance 236, issued August 7, 2007 - Metropolitan Plan Amendment for the use of information technology - Creating Electronic Government Unit of MDMQ
Connectivity	Internal: The MDMQ began a process of redesigning and improving networks of municipal entities. Citizens: By the end of 2008 internet access in the province of Pichincha was 17%
Horizontal Use of Information	At the municipal level, we worked on a model of e-government horizontal information, according to the architecture proposed by the E-Government Unit.
Technology and equipment for public accessibility	Creating <i>Cybernarios</i> , internet access through libraries and museums, 7 points of access to information (kiosks)

Participation of citizens	Development of e-Government Route for the citizens of the MDMQ
Participation of the media	Workshop for journalists dictated in part of the “Model of Electronic Government for heritage cities”
Educational Participation of community	Guide for teachers and educational Multimedia developed with the support of teachers through workshops, the material was socialized with municipal educational institutions.

It is also important to know the experience of those involved in the process, so we interviewed three MDMQ officials who were involved first-hand with the process:

1.5.1 Interviews

Interview with Paco Moncayo Gallegos – Former Mayor of Quito

Interviewer: Alexandra Moscoso

Interviewed: Paco Moncayo – Former Mayor of Quito

Administration 2006-2008: Mayor of Quito

Date of Interview: 21 Dec 2013

1. Introduction Work on Electronic Government in Municipal Management Period

A: I directed the administration of the city at the beginning of the century. In the world the effects of the revolution in science and technology are thriving. ICT and nanotechnology were radically changing the way we produce, think, and relate. In the global geopolitics, the cities had come to play a leading role in the development and safety of communities. There was talk of digital cities, innovative cities, cities as centers

of strategic management linked to the global economy. Cities are now the reference field for the knowledge society. They are the centers of strategic management in the context of the global economy.

In Quito, a project with the name DIGITAL QUITO, composed basically of three programs was planned:

a) INTERNET for all

Quito had a low coverage of connectivity. A small percentage of the population had access to the network using technological means. So the priority was to expand coverage. For this, several projects were developed:

- Quito, educa net. Whereby the entire public education system with computer labs and instruction to teachers came to employ new teaching techniques supported by the Web. These laboratories became community tele-centers in the hours and days that there were no classes.
- Expanded coverage and accessibility to communication systems and promoting the use of computers for business and home use, by creating tele-centers available to citizens throughout the district laying an optical fiber network along the city to provide internet services to the municipal institutions and places of public education.
- Digitization of libraries, museums, and municipal records for the integrated management of public and private institutional memory, preservation and dissemination of heritage assets.

b) Digital Government

Or what is known as e-government to digitize all administrative processes and services to the community.

c) Digital democracy

So that citizens may have a direct way to participate, according to the Ordinance of citizen participation through suggestions, feedback on administrative measures, citizen oversight, etc.

2. What do you think was the incidence of UNESCO through the project "Model of Electronic Government for heritage cities" in creating a model for Electronic Government Quito?

UNESCO supported the three cities symbol of the cultural heritage of South America Quito, Cuzco and Cartagena for this project which had among its main objectives the digitization of heritage memory, i.e. libraries, museums and municipal archives to preserve and disseminate the rich patrimonial heritage.

3. What were the criteria used to deliver the project implementation INNOVAR UIO?

The Urban Development Corporation of Quito was responsible for giving effect to any strategic projects requiring financing from multilateral lending agencies. Its main role was in the development of fiber optic network and the modernization of cadasters. The technical part was developed by each metropolitan agency.

4. How useful was the forum "Write to the Mayor", inside the website, to know the specific needs of the citizens?

Simple representation of democracy, in which citizens come every couple of years to vote was to make a qualitative leap to participatory democracy in which the people exercise a determining role in the planning and implementation of public policies, plans and budgets. The digital democracy project was only a tool for the implementation of this new model of democracy that the national government has failed to implement following the constitutional mandate despite the authoritarian nature of President. The result was good, but not better than "The Mayor and the City" (Live Radio Program) or the public hearings; this because of the still low penetration of the networks in the largest part of the population.

5. What were the objectives sought to be achieved with the implementation of a e-government model?

Use the tools offered by ICT to enhance administrative performance, provides better and timelier services to citizens, reduce the costs of the process, be more competitive, fight corruption and change the old paradigms.

6. What motivated you to make e-government such an important topic during your term?

Ensure that Quito be placed in the world map as an innovative city, open to technology, digital culture, attractive for investment and tourism, and with a transparent model of administrative management to their people.

7. What were the reasons why the E-Government Unit was created in the administration?

For there to be responsible for carrying out the Digital Government program and provide technology support to all municipal consulting center.

8. In terms of citizen participation, what were the activities of e-government proposals?

The proposed digital objective was to bring democracy to the people with the authority to maintain a constant feedback and create a culture of participation and empowerment of public policy issues.

9. Do you think the current city administration has maintained the necessary policies based on promoting e-government?

The current mayor was acting as an expert on systems for public participation and was a consultant for the development of the respective Ordinance. As a mayor he forgot his own theories, left people behind and hide under the imperial mantle of the President.

Interview with Dr. Lorena Mora - Former Director of Communications of the MDMQ

Interviewer: Alexandra Moscoso

Interviewed: Dr. Lorena Mora

Administration 2006-2008: Director of Communications of the MDMQ

Date Interviewed: 20 December 2013

1. What was your involvement in the UNESCO program of e-government?

A: As Director of the Office of Communications of MDMQ I was appointed by the mayor to join the board of the Information Technology Company.

2. In what ways did journalists participate in the program? Did their ideas contribute in the creation of e-government model in Quito?

A: Given the importance of the topic, two journalists were appointed; one that covered the source from the Municipality and another direct with the Company, Of course they contributed; being an open-door, management ideas were always drawn on the Boards, were analyzed, and sometimes put into practice.

3. Was the "Route of Electronic Government" activity replicated in Cusco and Cartagena or was it only held in Quito?

R: It was carried to the two cities, there they were implemented but the local governments did not follow the marking process.

4. In terms of effectiveness, how would you rate the program of UNESCO?

R: Personally I think any program that is not sustainable over time loses its effectiveness.

5. To what extent were citizens familiar with the use of access points (kiosks) in the zonal administrations?

R: It is a very good tool, so the information provided at the kiosks was received with enthusiasm by users.

- 6. One of the activities covered by the program was the creation of a superior degree in e-government in Quito, Cusco, and Cartagena. Do you know why it was not implemented?**

R: As I explained, political will influenced –for this not to succeed- and if there’s no interest from the authority to keep on with the implementation of new technological options everything remains unheeded.

- 7. Under the program, an Educational Multimedia Guide was developed to be socialize in municipal schools, what was the reaction of teachers and students?**

R: Benalcázar High School still maintains part of the development of those who graduated in 2008, promoting expressed interest in upcoming promotions guided towards technological globalization.

- 8. Do you think the current municipal administration prioritizes e-government in its management?**

R: I don’t think they know what an eGovernment is. I do not think putting in a WIFI terminal in a square or bus station is all; it is part of an e-government, but not everything.

2. Implementation of II Phase of IFAP Project: Access to information, Accountability and Transparency in the Andean Region

Introduction

The “IFAP II Phase: Access to information, accountability and transparency in the Andean Region” project is the continuation of IFAP “Model of Electronic Government for World Heritage Cities of Ecuador”, project executed in the period 2006-2008. It was implemented with funding from the Ministry of Territorial Policy and Public Administration of Spain from October 2010 to March 2012 in Bolivia and Ecuador. In Ecuador, there was support from the Ministry of Telecommunications and Information Society of Ecuador (Mintel).⁸⁶

The need to develop the second phase arises due to late progress on issues of e-government in both countries. For 2010, and according to a survey of United Nations of E-Government, Bolivia and Ecuador were the countries that least progressed in the area occupying positions 98 and 93 respectively which motivates the efforts of UNESCO to reverse target as much as possible to the most disadvantage of the two Andean republics.ⁱ

In Ecuador, studies were conducted in the municipalities of the cities of Ambato, Cuenca, Guayaquil and Santa Cruz, determining the urgent need to standardize “the processes of adoption of e-government in the public sector” (Final Report), i.e. standardize the government websites and the processes of introduction of ICT in population and standardize access to information and e-government “at a citizen level.”

2.1 Background

To understand the situation of e-government in the country, we analyze the national legal framework in 2012 on information technology and e-government, social background type, and political background.

⁸⁶ UNESCO. Informe Final 2010 - 2012 Proyecto Acceso a la Información, Rendición de Cuentas y Transparencia en la región Andina.
Quito: Oficina de la UNESCO en Quito, 2012

2.1.1 Legal framework

We state the laws that support the modernization of public institutions through the use of ICT and e-government implementation and enforcement of actions to encourage public participation and access to information.

- a) State Modernization Act, Privatization and Public Service Delivery by the private sector - December 1993⁸⁷
- b) Law on Electronic Commerce, Electronic Signatures and Data Messages - April 17, 2002⁸⁸
- c) Organic Law on Transparency and Access to Information (LOTAIP) - May 18, 2004⁸⁹
- d) Executive Decree 1014 of 2008 for the use of free software by government agencies⁹⁰

2.1.1 Background of Social Type

Ecuador has historically been a country in which the backwardness and corruption could not be combated effectively since its creation as an independent republic in 1830. There have been many known cases of embezzlement, bribery, and nepotism in virtually all levels of national and local public administration.

A lack of empowerment and informed exercise of citizenship along with lax and poor performance of the supervisory authorities have returned to the performance assessment of public authorities and institutions with a pending case in the Republic of Ecuador.

⁸⁷ Congreso Nacional Ecuador. "Ley de Modernización, Privatizaciones y Prestación de Servicios Públicos por parte de la Iniciativa Privada". Organización de Estados Americanos. 29 Noviembre de 2013 www.oas.org/juridico/spanish/ecu_res16.doc

⁸⁸ Congreso Nacional Ecuador. "Ley de Comercio Electrónico, Firmas Electrónicas y Mensajes de Datos". Organización de Estados Americanos. 29 Nov 2013 http://www.oas.org/juridico/spanish/cyb_ecu_ley_comelectronico.pdf

⁸⁹ Congreso Nacional Ecuador. "Ley Orgánica de Transparencia y Acceso a la información LOTAIP". Grupo Faro. 29 Nov 2013 <http://transparencia.grupofaro.org/caja-de-herramientas/ley-organica-de-transparencia-y-acceso-a-la-informacion-lotaip>

⁹⁰ Función Ejecutiva República del Ecuador. "Decreto 1014 Software Libre en Ecuador". Blog Asociación de Software Libre Ecuador. 29 Nov 2013 http://blog.asle.ec/wpcontent/uploads/2013/02/Decreto_1014_software_libre_Ecuador.pdf

2.1.3 Political Background Type

The overall objectives of accountability are, in a ratio of mandate, to control the political power of attorney, to procure the safety of citizens that power play under the common good and general welfare of its members and to limit manifestly arbitrariness and to raise the responsibilities inherent in the performance of public office.

Accountability as an institution is not only a responsibility of the governor or an inalienable right of the citizen, but also represents the possibility of exploiting political capital legitimizing activities in the exercise of functions in the close ties that are created through the fulfillment of this standard; *“The new democracy, enriched by participation, clarifies the relationship between the authorities and voters, between the sovereign people, which exercises control and agents, who have to fulfill the mandate given at the polls; citizen participation not only that puts political power under community control, thereby correcting distortions in the traditional exercise of public functions, (...), but educates the public to exercise civic citizenship, becoming the principal in subject and main protagonist of the construction of public policies. . .”* (MONCAYO, P. Presentation of Accounts of Assemblyman in Pichincha period 2009-2010⁹¹)

2.1 Implementation of the Program in Ecuador

The UNESCO program's main objective was to “standardize processes of e-government adoption in the public sector,” so they set out to work on 3 fronts:

a) Public awareness of e-government and information society

To meet this axis, events were developed on “awareness of information technology, e-government standards, and citizen participation mechanisms targeting key civil society actors and public employees.”⁹²

⁹¹ MONCAYO, Paco. “Rendición de Cuentas Asambleísta por Pichincha período 2009-2010”. Portal Paco Moncayo. 30 Nov 2013 <http://www.pacomoncayo.ec/rendicion0910.pdf>

⁹² UNESCO. Informe Final 2010 - 2012 Proyecto Acceso a la Información, Rendición de Cuentas y Transparencia en la región Andina. Quito: Oficina de la UNESCO en Quito, 2012

Of particular importance was the **Seminar on Digital Cities: An Opportunity for Ecuador** carried out by the Ministry of Telecommunications and Information Society of Ecuador (Mintel) in collaboration with UNESCO-Quito, on November 17th, 2011, in order to “awaken public interest on standards of e-government towards promoting transparency in municipalities.” Special speakers attended such as Elida Rodriguez of Argentina and Marcelo Lasagna of Chile. The seminar was attended by 60 associations and institutions: officials of ministries and departments, municipalities, social organizations, and members of the university sector.⁹³

Additionally UNESCO-Quito, in collaboration with the Latin American Faculty of Social Sciences (FLACSO), the NGO “*Radialistas Apasionadas*”, and the volunteers of the United Nations in Ecuador, held the 1st International Congress of Free Culture in order to “deepen the exchange of experiences and reflections on open access to information, knowledge and cultural production.” Congress was held on 17th and 18th October 2011 in the city of Quito and about 300 people attended.⁹⁴

b) Strengthening the capacity of key actors to improve governance

Several training workshops in collaboration with civil society were carried out in the country. Workshops on **usability standards for design of government websites** were held in May 2011 in the cities of Quito, Guayaquil, and Cuenca. The “Pilot Process to Promote the Use of Standards in Towns and Regulations Linked to Application Transparency” was another seminar where topics were discussed about focus on the complementarity of these criteria in the Transparency Public Law (LOTAIP) in Ecuador.

Further workshops on **awareness and validation of e-government standards for municipalities in Ecuador** in collaboration with the NGO FARO, in order to socialize the proposed e-government standards to promote transparency in municipal administrations, were made.

⁹³ UNESCO. Informe Final 2010 - 2012 Proyecto Acceso a la Información, Rendición de Cuentas y Transparencia en la región Andina.
Quito: Oficina de la UNESCO en Quito, 2012

⁹⁴ UNESCO. Informe Final 2010 - 2012 Proyecto Acceso a la Información, Rendición de Cuentas y Transparencia en la región Andina.
Quito: Oficina de la UNESCO en Quito, 2012

In the city of Quito, 14 teachers in the UNESCO Associated Schools and specialists from the Ministry of Education participated. They also presented material in schools in the provinces of Azuay, Carchi, Imbabura, and Pichincha, which should make post-training work with other teachers in their institutions.⁹⁵

c) E-government tools and recommendations for public policies

The resources generated through the program were:

1. Proposal categories to analyze the implementation of e-government in the municipalities.
2. Manual of Standards for local governments in Ecuador, *How to measure e-government*
3. Proposed standards for government websites. Guarantee access to public information.
4. Application Manual Standards of Governmental Web Sites.

2.2 Results and Conclusions

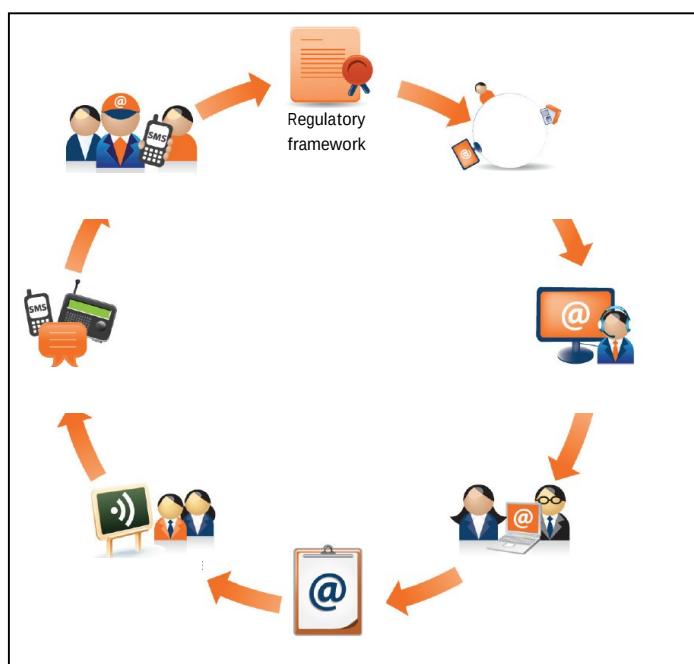
The project planned as a central objective to standardize processes of e-government adoption in the public sector, so we will analyze results in the development of e-government tools. While the material is documentary, this is the basis for the development of a model of e-government in government and municipal entities. Among the results we will focus on the study program implemented on the municipalities of Cuenca, Ambato, Guayaquil, and Santa Cruz on issues of e-Government.

2.2.1 Tools for Electronic Government

- a) Proposed categories to analyze the implementation of e-government in municipalities:** There are several components necessary to develop a model of e-government, the study proposes the analysis using the following model of ECLAC:

⁹⁵ UNESCO. Informe Final 2010 - 2012 Proyecto Acceso a la Información, Rendición de Cuentas y Transparencia en la región Andina.
Quito: Oficina de la UNESCO en Quito, 2012

Figure 13: Base Integral approach for developing e-government



Source: Proposal categories to analyze the implementation of e-government in municipalities.

b) Manual of Standards for local governments in Ecuador, How to measure the E-Government?⁹⁶

It is important to raise standards of e-government in public institutions as it offers the opportunity to have a more efficient and coordinated management with the greatest potential to bring the relationship with citizens.

It is also a mechanism to measure the level of progress in the use of ICT and a visibility of best practices in the development of e-government in the country.

So as a result, the promotion of e-government standards naturally generate more effective mechanisms for promoting transparency and public access to information and alternative mechanisms to promote best practices and a culture of accountability in the public sector. These standards not only analyze the legal framework, but also in terms of development policies and strategies, infrastructure and training requirements, and the inclusion in the management of e-government, the promotion and dissemination of ICT channels, and how to

⁹⁶ UNESCO. Manual de Estándares para Gobiernos Locales en Ecuador. Quito: Oficina de la UNESCO en Quito 2012.

create and strengthen mechanisms of democracy and participation through these tools.

c) Proposed standards for government websites. Guarantee access to public information⁹⁷

Five key points from the previously identified user needs (which is a user-friendly website that downloads fast, where information can easily be found that is clear and operational) were raised.

d) Application Manual: Standards of government websites⁹⁸

In order for national and municipal entities to adopt the standards manual, manual application of the same was made, so the city will have its intuitive platforms available that allow you to interact and participate.

2.3.2 Study Results: Electronic Government in Cuenca, Ambato, Guayaquil, Orellana and Santa Cruz

Model-based ECLAC results, explained in the following figure:

⁹⁷ UNESCO. Informe Propuesta de Estándares para sitios web gubernamentales. Garantía de Acceso a la información pública. Quito: Oficina de la UNESCO en Quito 2012.

⁹⁸ UNESCO. UNESCO. Manual de Aplicación Estándares Sitios Web Gubernamentales. Quito: Oficina de la UNESCO en Quito 2012.

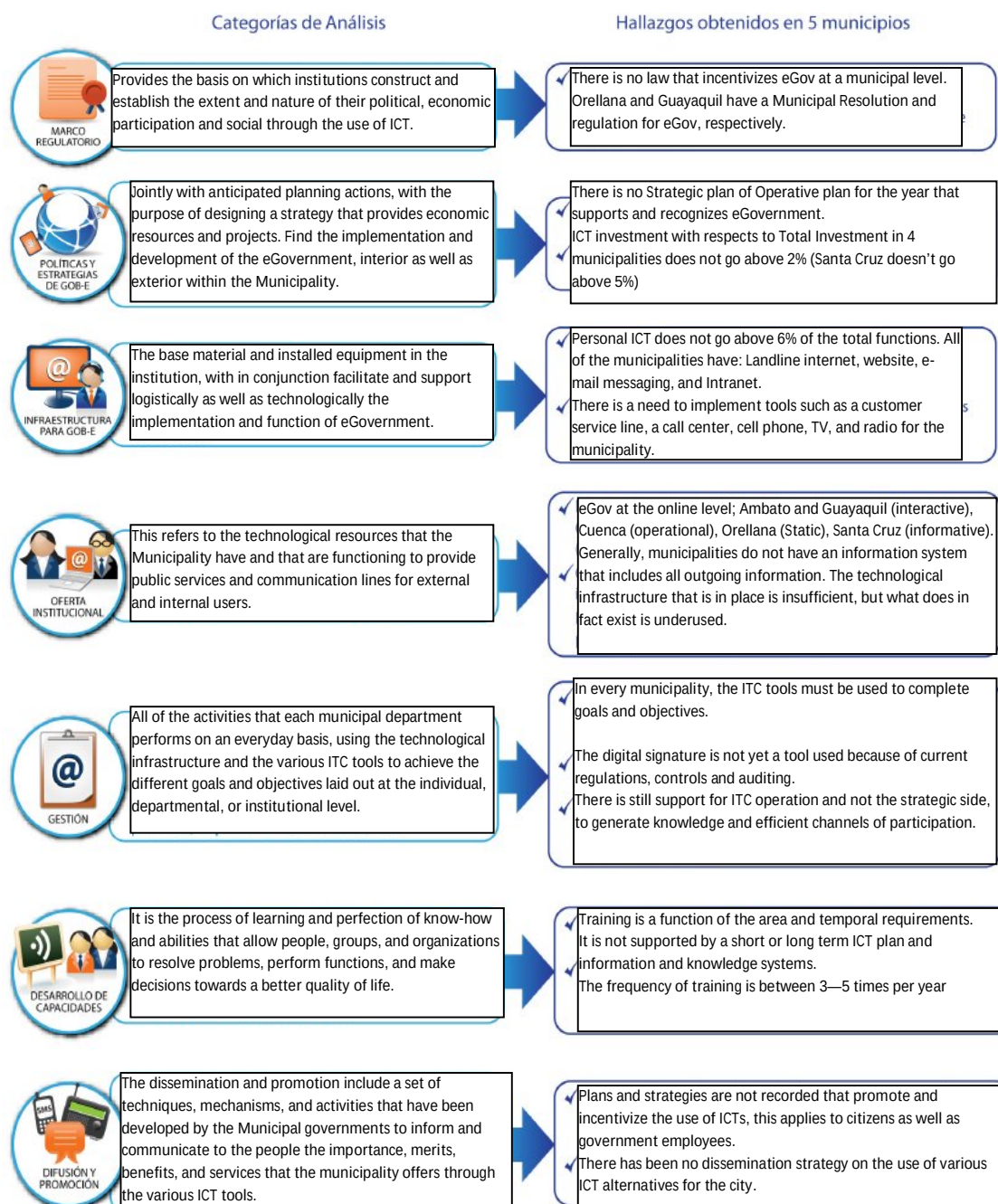


Figure 14: E-Government Survey Results 5 Municipalities

Source: Proposed categories to analyze the situation of e-government in municipalities

The results in the upper graph show that decentralized autonomous governments have several limitations and limited joint proposals in the categories of analysis. It is recognized almost as a general rule that there is no planning and generation of local

policies on the use and development of ICT use in public administration and citizen inclusion. The main applications of the technology used by municipalities are associated with the use of financial systems, Internet use, and development of institutional websites. They do not necessarily articulate with each other or with a focus on digital development policies. As a major conclusion we could point out that resources for investment and capacity building of the municipality regarding ICT are scarce.

Chapter Three: Results of IFAP projects in the cities of Cartagena, Cusco, and the Republic of Bolivia

1. Model of Electronic Government for World Heritage Cities Implemented in Cartagena and Cusco

Introduction

The E-government Model for Heritage Cities was applied in three Latin American cities: Quito, Cartagena and Cuzco. The three cities, at that time belonging to the Network of World Heritage Cities, were instructed on the model of e-government implemented in the city of Colima in Oaxaca / Mexico. The adaptation of the proposed approach was shared responsibility between municipal actors and experts.

In the 3 cities workshops for designing e-government model adapted to the needs of citizens through training, capacity building and equipment were made.

According to the final report,⁹⁹ the material obtained as a result of the project: a guide for teachers and educational multimedia, document processing manual for cultural heritage collections, and the design of an e-government degree were held by representatives of UNESCO and officials of the 3 municipalities. These resources were socialized among all program participants.

Therefore, to analyze the efficiency and effectiveness of the program we need to make reference to the work done by each municipality in order to develop an e-government model, giving more importance to the political will and determining whether the strategy of government designed by local councils or municipalities is based on the model of the city of Colima proposed on the workshops of the IFAP program, which gave big importance to a correct application of information standardization.

⁹⁹ UNESCO. Resumen de Actividades 2006 -2008 Proyecto Modelo de Gobierno Electrónico para Ciudades Patrimonio. Quito: Oficina de la UNESCO en Quito, 2009.

1.1 Electronic Government Model in Cartagena

The city of Cartagena in Colombia was declared a World Heritage City in 1984, its participation in the "Electronic Government Model for Heritage Cities" project was endorsed by the Mayor of the time, Nicolás Curi Vergara.

1.1.1 Political Background

Nicolás Curi Vergara was Mayor of Cartagena from December 8th, 2005 to December 31th, 2007, without completing the "Electronic Government Model for Heritage Cities" project in late 2008.¹⁰⁰

In 2008, Judith Pineda was elected Mayor. She went through such political issues as to the legitimacy of his office, specifically in the first year of her term.¹⁰¹

1.1.2 Government Online Strategy Cartagena

Unlike the city of Quito, in which the e-government model is designed based on municipal legislation mainly, in Cartagena the project coincides with the Presidential Decree No. 1151 on "General Guidelines of the Government Online Strategy of the Republic of Colombia,"¹⁰² posted on April 14th, 2008. In the same year an administrative agreement between the Mayor of Cartagena and the Communications Fund was signed.¹⁰³

The aim of the National Online Government Strategy was "to contribute to build a more efficient, more transparent and participatory state, and to provide better services to citizens and businesses, through to use of information technology and communication."

¹⁰⁰ IBARRA, Carlos Mauricio. "A pesar de todo eligieron a Curi."

El País Nov 2007: 1. El País Colombia. 19 Dec 2013

<http://historico.elpais.com.co/paisonline/notas/Octubre312005/A231N9.html>

¹⁰¹ El Tiempo Colombia. "Amigos y Detractores de Janeth Pinedo siguen midiendo fuerzas."

El Tiempo 24 June 2008: 1. Diario El Tiempo. 16 Dec 2013

<http://www.eltiempo.com/archivo/documento/MAM-2987118>

¹⁰² Presidencia de la República de Colombia. "Decreto No. 1151 del 2008". Organización de Estados Americanos. 20 Dec 2013 http://www.oas.org/juridico/spanish/mesicic3_col_dec1151.pdf

¹⁰³ Alcaldía Mayor de Cartagena. "Plan de Acción Programa Gobierno en Línea Territorial". Escuela Superior de Administración Pública. 20 Dec 2013

<http://cdim.esap.edu.co/BancoMedios/Documentos%20PDF/cartagena%20-%20bolivar%20plan%20de%20accion%202011.pdf>

Four phases were defined to be served in a similar period by all national and sectional institutions.

Information phase: It is the initial phase in which institutions enable their own websites to provide online information, coupled with easy search schemes.

Online interaction phase: It is the phase in which the two-way communication between entities and citizens and businesses with online consultations and interaction with public servants is enabled.

Online transaction phase: It is the phase of electronic transactions to obtain goods and services provided.

Online Transformation phase: It is the phase that changes are made in the form of operating entities to organize services around the needs of citizens and businesses with virtual PSCs and using government Intranet.

Online democracy phase: It is the phase in which it encourages citizens to participate actively in the decision-making of the state and the construction of public policies involving the use of information technology and communication.

The timeline for national institutions and national territorial order was this:

Phase	Deadline for national entities	Deadline for territorial entities
Information Phase	June 1, 2008	December 1, 2008
Interaction Phase	December 1, 2008	December 1, 2009
Transaction Phase	December 1, 2009	December 1, 2010
Transformation Phase	June 1, 2010	December 1, 2011
Democracy Phase	December 1, 2010	December 1, 2012

Figure 15: Timeline of Government Online Strategy Cartagena

Source: Online government Strategy Government of Colombia

In Cartagena, a diagnosis of eGovernment was performed, including areas of action on each program.¹⁰⁴

¹⁰⁴ Alcaldía Mayor de Cartagena. "Plan de Acción Programa Gobierno en línea Territorial". Escuela Superior de Administración Pública. 20 Diciembre 2013 <http://cdim.esap.edu.co/BancoMedios/Documentos%20PDF/cartagena%20-%20bolivar%20plan%20de%20accion%202011.pdf>

Areas of action	Associated Phase
Best Services	Information, Interaction, Transaction, Transformation
Transparency	Information, Interaction, Transaction, Transformation, Democracy
State Efficiency	Information, Interaction, Transaction, Transformation, Democracy

Figure 16: Lines of Action Strategy Government Online

Source: Government Action Plan in line Cartagena

Once lines of action were defined, the governance action plan developed and a Governance Committee was established in Cartagena responsible for executing those projects.

The Cartagena Action Plan based on government regulations was made the same year to meet the reporting phase and advance the interaction phase. The following table shows the final action plan to develop in the city.¹⁰⁵

¹⁰⁵ Alcaldía Mayor de Cartagena. "Plan de Acción Programa Gobierno en línea Territorial". Escuela Superior de Administración Pública. 20 Diciembre 2013 <http://cdim.esap.edu.co/BancoMedios/Documentos%20PDF/cartagena%20-%20bolivar%20plan%20de%20accion%202011.pdf>

Action	Citizen Benefits	Management Indicators	Goals	Activities	Responsible	Resources	Times
Update of Website	1. Clear, timely, and true information	Number of visitors to website	Update all channels of the website on time	- Review channel accessibility - Review availability of webpage	COMPUTER ADVISORY OFFICE	PHYSICAL SPACES COMPUTER EQUIPMENT HUMAN RESOURCES	DAILY
Train users of SIGOB	Database and Control Methods for services and procedures	% of implementation of SIGOB	100% implementation of SIGOB	- Develop training - Acquire computer equipment - Update computer equipment	IT ADVISORY OFFICE OFFICE SECRETARIAT	PHYSICAL SPACES COMPUTER EQUIPMENT HUMAN RESOURCES SIGOB	TRAINING SCHEDULES
Socialize the implementation of the strategy within the entity	The public servants will make use of ICTs to improve the way they perform their daily activities	Results of satisfaction surveys conducted through the official website and third parties	Increase the level of satisfaction of citizens in relation to the administration by 50%	- Empowering career public servants and others in the use of ICTs to improve the processes and procedures for the administration - Make use of the system determines that the entity for the use of ICTs	IT OFFICE GELT COMMITTEE	PHYSICAL SPACES COMPUTER EQUIPMENT HUMAN RESOURCES WEBSITE	TRAINING SCHEDULES ACQUISITION PLAN
Streamline procedures and services approved by the DAFP in SUIT	Improve the level of trust and satisfaction of employers with citizens	Demonstrate to the public and other state authorities the application of continuous improvement	Streamline procedures and services approved by the DAFP and publication on the website	- Create a process of streamlining within the committee - Identify the major impact procedures to start streamlining	GELT COMMITTEE	PHYSICAL SPACES COMPUTER EQUIPMENT HUMAN RESOURCES WEBSITE	TWICE A YEAR
Raise awareness and engage strategic partners in accompanying strategy	Improve the level of satisfaction and confidence in the management of business	Integrate actors of economic and social sectors in the development of the strategy	Numbers strategic actors involved and committed to the strategy	- Determine strategic partners for different projects related to ICT - Invite economic and social actors to know the strategy - Advertise strategic allies as managers in the successful realization of the strategy and management	GELT COMMITTEE	PHYSICAL SPACES COMPUTER EQUIPMENT HUMAN RESOURCES WEBSITE	THREE TIMES A YEAR
Provide control agencies in the implementation of the strategy	Increases image and ownership of the entity's	The percentage of citizens and entrepreneurs considered the	Increase in number of entities with control strategy make use of	Submit to control entities implementing	GELT COMMITTEE	PHYSICAL SPACES COMPUTER	PERMANENT SURVEYS ON THE WEBSITE

and the use of service level formats for reporting information	management board. Citizens and organizations are the control of the entity information safely and quickly	most transparent administration. The percentage of institutions control management reports published on the website. Management reports on the website. The level of compliance in the processing of standardized formats for reporting to management on the part of staff.	standardized formats for delivery of management information published on the website	the strategy in the use of standard formats for delivering information management. Consolidate management in the use and publication of standard formatting for information delivery to control entities		EQUIPMENT HUMAN RESOURCES WEBSITE	
Making a plan of action plan of continuous improvement as part of MECI and quality	The continuous improvement plan allows for the needs of the community at a particular time giving specific solutions from the use of ICTs	Continuous improvement plan	Address the specific needs of the community in terms of ICT	- Maintain contact with citizens to identify needs in terms of ICT - Promote the use of strategies to improve the plan's impact on quality of life of citizens of Cartagena	GELT COMMITTEE	PHYSICAL SPACES COMPUTER EQUIPMENT HUMAN RESOURCES WEBSITE	REVISION TWICE A YEAR
Support and / or develop the project linked to ICTs: as digital territories, digital district, etc.	Increase the use and affordability of citizens to ICT	Project digital territory Similar projects	Percentage in implementing the project Level of impact of the project in the community	- Elaboration and presentation of territorial digital project - Execution of project	GELT COMMITTEE AND STRATEGIC ALLIES	PHYSICAL SPACES COMPUTER EQUIPMENT HUMAN RESOURCES WEBSITE	EVERY THREE MONTHS MANAGEMENT IS PUBLISHED

Figure 17: Final Action Plan for Electronic Government Cartagena
Source: Mayor of Cartagena Action Plan

1.1.3 Standardization Model of Information

In the case of Colombia, the standardization of information was initiated through the program Colombia Connectivity Agenda in 2000, which stated that, “The Government will promote a cultural change within each of its agencies attached, seeking to ensure the adoption of information technology within them. Further to the above, will be

reviewed and optimized processes within institutions and **standardized information exchange agency level schemes will be established.**”¹⁰⁶

Therefore, in comparison to the city of Quito, in Cartagena the standardization process started from the national government, providing information to the territorial institutions and improving transfer processes.

However, in Cartagena, there was still no model of standardization of information, which is why for February 2007 there was only systematized and unified information from the Traffic Department and Planning and Finance Office.¹⁰⁷

1.1.4 Contribution of the Program "Electronic Government Model for Heritage cities"

The project was carried out in the period 2007-2009, and under the municipal administration of Mayor Nicolás Curi and Janeth Pinedo. The training workshops for officials were conducted mainly in the first year.

According to Silfredo Godoy, of the Computer Counseling Office of the Municipality of Cartagena, “the main contribution was training on the new model of e-government...”¹⁰⁸

The UNESCO project proposed an e-government model adapted to the one implemented in the city of Colima. In the case of the Cartagena, the Municipality had to adapt its model to the online Government Strategy of Colombia which assumed that national institutions and territorial system were systematized and standardized.

The project helped train officials to design a model that starts by normalizing the information (not covered in the strategy adopted by the Colombian government.)

¹⁰⁶ Ministerio de Comunicaciones. “Agenda de Conectividad 2000”. Network Startup Resource Center. 21 Dec 2013 <http://nsrc.org/STHAM/CO/conpes.pdf>

¹⁰⁷ El Tiempo Colombia. "Cartagena será la primera ciudad patrimonio en tener Gobierno Electrónico." El Tiempo Colombia 15 Feb 2007: 1. El Tiempo Colombia. 23 Dec 2013 <http://www.eltiempo.com/archivo/documento/CMS-3440724>.

¹⁰⁸ UNESCO. Resumen de Actividades 2006 -2008 Proyecto Modelo de Gobierno Electrónico para Ciudades Patrimonio. Quito: Oficina de la UNESCO en Quito, 2009.

With the support of UNESCO, the services that the City of Cartagena could provide citizens through electronic service kiosks were diagnosed:¹⁰⁹

Taxes:

- Issuance of Statements for payment of property tax, etc.
- Issuing certificates of no debts to pay taxes

Planning:

- Request Stratification
- Print layering record
- Replenishment Evidence of stratification

Transit and Transportation:

- Expedition Bumper utility rate
- Issuance of certificates and transcripts
- Printing stories registry
- Printing statements
- Check for status request badge
- Duplicates property card
- National Printing Single Form
- Payment of late penalty for uninformed paperwork
- Payment of late penalties for annual right of transit
- Collection of various offenses and penalties
- Issuance of record of the Colombian Federation of Municipalities
- Issuance of document *Paz y Salvo* of the Colombian Federation of Municipalities

According to the Mayor Nicolás Curi Vergara, the goal was for December 2007 that immediate arrangements be made through access points deployed in the city (kiosks)¹¹⁰

¹⁰⁹ UNESCO. Resumen de Actividades 2006 -2008 Proyecto Modelo de Gobierno Electrónico para Ciudades Patrimonio.

Quito: Oficina de la UNESCO en Quito, 2009.

¹¹⁰ El Tiempo Colombia. "Cartagena será la primera ciudad patrimonio en tener Gobierno Electrónico." El Tiempo Colombia 15 Feb 2007: 1. El Tiempo Colombia. 23 Dec 2013
<http://www.eltiempo.com/archivo/documento/CMS-3440724>.

1.2 Model of Electronic Government for the city of Cusco

The city of Cusco was declared a World Heritage City in 1983; and in 2007, under Mayor Marina Siqueiros, the UNESCO project “Electronic Government Model for Heritage Cities” began.

1.2.1 Political background

The Mayor Mariana Siqueiros did not see her period of municipal management completed after being removed from office on charges of nepotism.¹¹¹ By mid-December 2008 Mariano Vaca Anaya took office ¹¹² and is also dismissed by accusations of nepotism in May 2009.¹¹³

1.2.2 Electronic Government Program in Cusco

In June 2003, by Ministerial resolution it was created the “Multi-sectorial Commission for the Development of the Information Society” and it created as part of its functions the National Office of Electronic Government and Informatics (ONGEI) as responsible for implementing e-government and outlining national and local policies. In 2006, the term of office of President Alan García's National E-Government Strategy was approved.¹¹⁴

¹¹¹La República Perú. "Regidores vacan la alcaldesa de Cusco Marina Sequeiros."

La República Perú 28 Jun 2008: 1. La República Perú. 23 Dec 2013 <http://www.larepublica.pe/28-06-2008/regidores-vacan-la-alcaldesa-de-cusco-marina-sequeiros>

¹¹² Enlace Nacional. "Juramente del nuevo alcalde provincial del Cusco"

Enlace Nacional 19 Dec 2008: 1. Enlace Nacional. 23 Dec 2013

<http://enlacenacional.com/2008/12/19/juramento-el-nuevo-alcalde-provincial-del-cusco-mariano-baca/>

¹¹³ Diario Perú. "JNE vaca al Alcalde del Cusco por Nepotismo"

Diario Perú 7 May 2009: 1. Diario Perú. 23 Dec 2013

<http://www.peru.com/noticias/regional20090507/33138/JNE-vaca-a-alcalde-de-Cusco-por-nepotismo>

¹¹⁴ ONGEI. "Una Mirada al Gobierno Electrónico en el Perú". Amazonas. 28 Dec 2013

https://s3.amazonaws.com/ongei/libro_ongei.pdf

As a main line of action within the national strategy, the need for a definition of standards was proposed that includes:¹¹⁵

- Exchange processes information using digital media documentary
- Interfaces and schemes of information exchange through information services (web services).
- Methodological standards in project management technology and implementation of information security, software development cycle and process modeling.
- Development of portals and enterprise content management and websites using technologies that facilitate the sharing of information.
- Technologies and components in an open and modular architecture enabling the interoperation application of Electronic Government (protocols, interfaces, messages, data structures, encryption).

As in Cartagena, the standardization process started from the institutions of the national government.

The one responsible for developing the model of E-government for the city of Cusco was the Regional Government of Cusco with the support of ONGEI based on the National Strategy. It is only until 2011 that the region of Cusco had a design model for Electronic Government, structured as follows:

¹¹⁵ ONEGI. "Estrategia Nacional de Gobierno Electrónico". ONGEI. 28 Dec 2013
http://www.ongei.gob.pe/Bancos/banco_normas/archivos/Estrategia_Nacional_Gobierno_Electronico.pdf

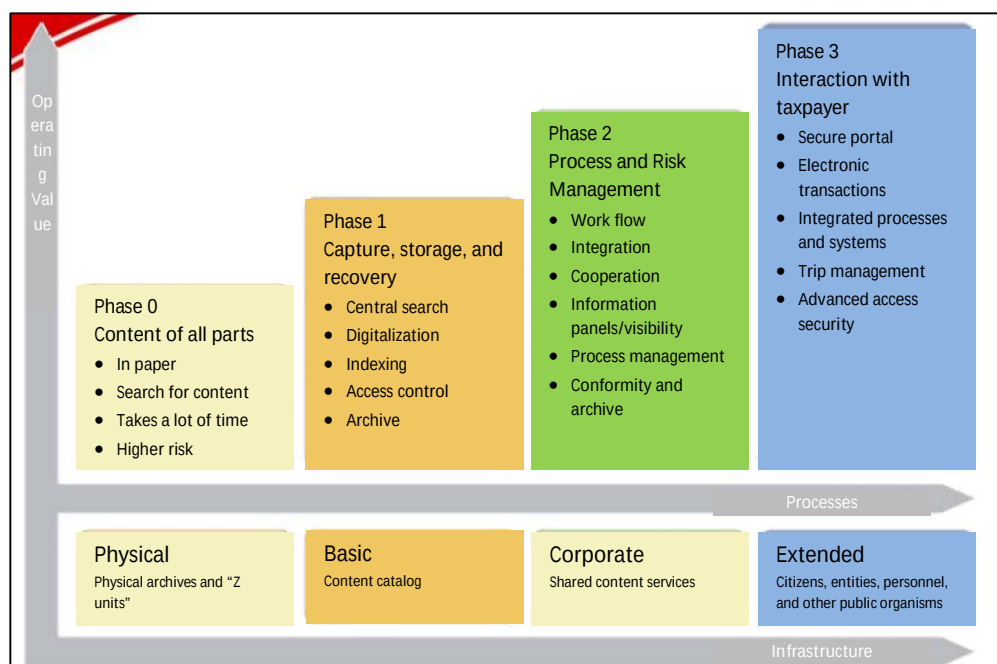


Figure 18: Model of E-Government Cusco 2011
Source: E-Government Strategy Cusco

1.2.3 Standardization of Information

Within the National Strategy 2006 of Electronic Government, there is reference to the systematization of information and networking between institutions. In Cuzco in 2011 the Regional Institutional Information System was designed through a unique architecture to centralize information in a single NODE as shown in the example:¹¹⁶

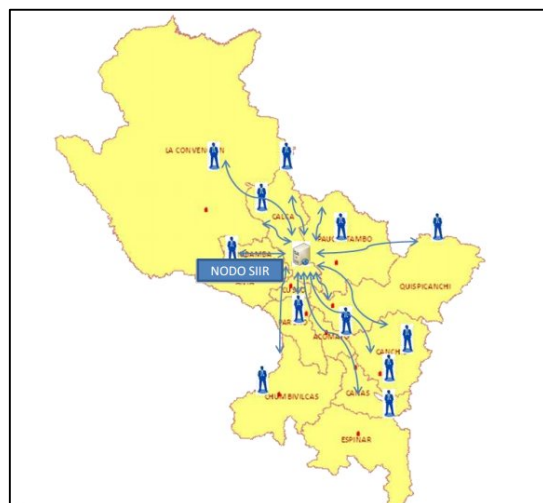


Table 19: Regional Institutional Information System

Source: Cusco E-Government Strategy

¹¹⁶ ONGEI "Gobierno Electrónico Cusco SGDI. ONGEI. 29 Dec 2013
http://www.ongei.gob.pe/eventos/Programas_docu/60/Programa_479.pdf

1.2.4 Contribution Program "Electronic Government Model for heritage cities"

In the period in which the project was conducted, Cusco was going through a difficult political situation. Mayor Mariana Saqueiros was removed in 2008 and the Mayor who took his vacancy, Mariano Vaca Anaya, was dismissed in 2009.

Project activities were implemented in 3 cities, including the implementation of service kiosks as were detailed in the Final Report of UNESCO, but the process of designing an electronic model adapted to the needs of Cusco achievement were not completed. It included the training objectives and public facilities (kiosks) but in the long term the knowledge gained in the workshops held by UNESCO was not reflected.

The UNESCO made a diagnosis about the administrative online services that may be provided by the Municipality of Cusco and are listed below:

Traffic, roads, and transport

- Payment of Traffic Tickets
- Printout of No Evidence of Traffic Infringement
- Consultation of Traffic Offenses
- Viewing and Printing records of traffic violations per vehicle and driver's license
- Participation in open court

Civil Registry

- Issuance of certified copies of birth, marriage, death, and divorce

Prospective services

- Payment of Property Tax and Vehicle Tax

According to the City Councilman of Cusco, Franklin Oliveira, what caught his attention in the UNESCO project was the use of ICTs in the municipalities to improve citizen service.¹¹⁷

In 2011 the Regional Office was responsible for the Cusco Development Model for Electronic Government for the city, with support from ONGEI. The standardization process was newly introduced, similar to the model in the sense of Colima in which more importance was given to the unification and systematization of information.

So even though the activities were carried out normally by UNESCO, the Municipality did not react in time to design an e-government model.

2. Access to information, Accountability and Transparency in the Andean Region applied to the Republic of Bolivia.

Introduction

The UNESCO decided to applied the IFAP program in Bolivia because it was one of the countries with the lowest level of development in e-government, ranked at no. 98 of the United Nations General report.¹¹⁸

Comparing the level of e-government development in Ecuador, there are only 3 places below, i.e. the level is almost similar.

To analyze the results of this project, we will take the activities and tools developed under the program and will contrast with those carried out in Ecuador to determine the weaknesses of each country.

2. 1 Political Will

Thanks to the support of the Agency for Development of Information Society in Bolivia, the program “Access to Information, Transparency, and Accountability in the

¹¹⁷ UNESCO. Resumen de Actividades 2006 -2008 Proyecto Modelo de Gobierno Electrónico para Ciudades Patrimonio. Quito: Oficina de la UNESCO en Quito, 2009.

¹¹⁸ UNESCO. Resumen de Actividades 2006 -2008 Proyecto Modelo de Gobierno Electrónico para Ciudades Patrimonio. Quito: Oficina de la UNESCO en Quito, 2009.

Andean Region,” was developed from October 2010 to March 2014

2.2 Legal Framework

These are the legislative developments on the Information Society and Technologies in the Republic of Bolivia:¹¹⁹

- a) Establishment of the Agency for Development of the Information Society in 2003.
- b) Development Strategy for ICT development in the context of the recommendations made in the Geneva Summit in 2004.
- c) General Telecommunications Law, Communication technology and information in 2011.

2.3 Tools for Electronic Government

In Ecuador, they worked on tools to mostly standardize processes of e-government carried out in the local and national levels. In contrast, in Bolivia the contentious issues had to do with the legal framework and transparency and access to information, so that these resources were developed:¹²⁰

- a) **Recommendations for implementation of e-government in municipalities of Bolivia:** Analyzed as critical lack of policies to ensure public participation. In the study conducted in Ecuador, the 5 municipalities studied had only two ordinances that promote e-government.
- b) **Standards Guide for the design and implementation of local e-government in Bolivia:** Mostly focused on citizen participation, finding serious problems in the transparency of information.

¹¹⁹ UNESCO. Resumen de Actividades 2006 -2008 Proyecto Modelo de Gobierno Electrónico para Ciudades Patrimonio.

Quito: Oficina de la UNESCO en Quito, 2009.

¹²⁰ UNESCO. Resumen de Actividades 2006 -2008 Proyecto Modelo de Gobierno Electrónico para Ciudades Patrimonio.

Quito: Oficina de la UNESCO en Quito, 2009.

- c) **Recommendations on Municipal budget transparency:** It was developed with the aim of Municipalities to inform citizens through digital platforms everything related to budgets and improving the process of accountability.
- d) **Citizen's Guide to State budget:** It was developed to raise awareness to the public about the importance of their representatives to report on the use of public resources.

3. Conclusions

To select the cities or countries in which IFAP projects should be developed, reference points were taken as common features. In the case of “E-government Model for Heritage Cities” the status of “heritage cities” was the determinant factor; however the situation of municipalities in strategic issues for creating a model of e-government was different, either because of problems of a political nature or tracking a previously developed national agenda.

In this first project, after analyzing the use of every city, we discovered that even the proposed activities have been successfully carried through workshops; the program was not sustainable over time. Designing a model of e-government as presented by the program was only used by the city of Quito until the arrival of a new municipal administration. In the case of Cartagena they already were following a national e-government model, while the contribution in Cusco was practically zero since the national e-government agency recently presented an e-government model by 2011, five years after the UNESCO program was implemented.

The contributions to the heritage of the cities can be rescued such as the Processing Documentary Manual for Heritage Preservation of Content. Although it was used by the 3 cities, it was not the main objective of the program. If this had been its only purpose, the entire investment made by the Spanish government and municipalities was exaggerated.

Perhaps the second project is most palpable and adjusted to similar realities, with Ecuador and Bolivia occupying the lowest positions in e-government ranking issued by the United Nations. In this second phase adjusted to the specific needs of each state, tools were developed taking into account the failures so far.

The second step in this program generated useful resources for the development of e-government in the states, and what is expected in the short term is correctly applied. Neither Bolivia nor Ecuador until 2012 had laws or firm policies on the development of e-government, they only worked on programs developed by the institutions, so it is important that in the not too distant future both a national and local legal framework to expedite the development process of e-government in the country is established.

CONCLUSION

The IFAP Program of UNESCO was born in 2000, at the turn of the century, when the term Information Society was in apogee and the development of the countries was no longer determined by its production capacity, but available to solve the challenges of the new era of knowledge.

A first account of the activities undertaken by the program concluded that this instance of international debate was a useful platform to be used by member states, not only with its active participation on the board, but with the creation of national committees through its management, facilitating the allocation of resources to projects generated through the program.

With support from the Government of Spain, in Ecuador they managed to implement two projects: Electronic Government Model for Heritage Cities in 2006 and Access to Information, Accountability and Transparency in the Andean Region in 2010. It has been important in the study to analyze the political, legal, and even social history at the time they were implemented, resulting to be key factors in the success or failure of the program.

It has been found that project success is determined by its sustainability over time, but not for the successful implementation of planned activities. In the first project implemented in Ecuador, the Municipality of Quito achieved a synergy between its own project Quito Digital and the e-government model presented by IFAP. Within 2 years, advances in legislation, standardization of information, and the design of a new architecture focused on technology and citizen services were performed. However, to continue the processes, the political will is imperative, so that by the year 2009 with a new administration that governed the city of Quito, the structure of the Municipality of Quito was modified, and we realized that the main MDMQ officials who ran the UNESCO project no longer formed part of this new period.

On the project “Access to information, Accountability and Transparency in the Andean region,” we cannot yet have a final verdict. The main contribution to Ecuador was a series of reference documents on standardization of processes in e-government, which have been socialized with municipal and national entities. We know that the process of

implementation of e-government is a job for several years, so that in the future there should be an analysis on the use of these tools provided by UNESCO.

Furthermore, the implementation of these projects in other places gave us a broader view of the situation of some Latin American countries regarding information technology and e-government.

Cartagena is a clear example of progress since they have a national e-government strategy over the next several years; but not in Cusco, despite having a pre-2006 national e-government unit.

In Bolivia, we could see a serious problem on transparency and access to information, the UNESCO IFAP Program focused on its needs, we only hope that the politicians and public employees could give great use to these tools.

We conclude that the IFAP program offers great opportunities to states seeking help and support in their process of integration into a Society of Knowledge, but it is the duty of governments to ensure the continuity of the processes and their sustainability over time.

RECOMMENDATIONS

According to the analysis on the implementation and results of IFAP program in Ecuador, it is recommended that:

- Ecuador, through their delegates, has an active participation role in the meetings of IFAP, to propose viable initiatives under the program.
- UNESCO officials will not lose contact with program implementers in cities once the proposed activities are completed, as it is a process that must continue with any administration. Monitoring should be prioritized according to the aims of the IFAP.
- Civil society has an active participation in the processes of e-government as proposed by the municipal or national entities. It is they who account for the activities carried out with historical memory and public awareness that enables them to demand good use of its resources upon request.
- Publicize the “Electronic Government Program for Heritage Cities” with other cities, regardless of being or not heritage cities. The e-government model proposed here is not outdated, basing its approach on the standardization of information and locating technologies as enabling tools only.
- Progress was made in terms of legislation on e-government, specifically local governments through ordinances. If we compare the e-government progress in Ecuador to the progress made in Colombia, we will find out how immature Ecuador is on this topic.

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