FCG Finnish Consulting Group Ltd

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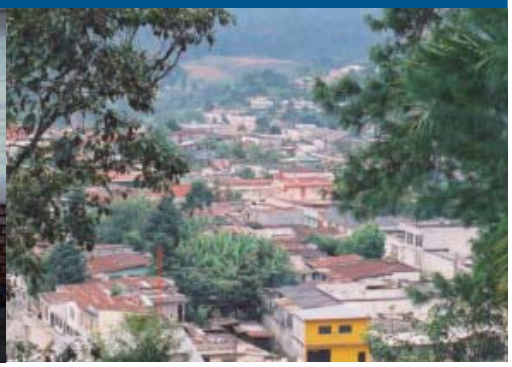

FINAL EVALUATION OF MUNICIPAL ICT PROGRAMME IN NICARAGUA

February 2012

FCG Finnish Consulting Group

The opinions expressed in this report are the consultants' opinions only and do not necessarily represent the views of the Government of Finland or the Finnish Consulting Group (FCG)

Acronyms and Abbreviations

3G	3rd generation mobile telecommunications
ADM	Municipal Development Partnership
ADSL	Asymmetric Digital Subscriber Line
AIN	Internet Association of Nicaragua
AMU	Associations of Municipalities
AMUB	Association of Municipalities of Boaco
AMUNIC	Association of Municipalities of Nicaragua
AMURACAN	Association of Municipalities Autonomous Regions of Nicaragua's Atlantic Coast
AMUZEC	Association of Municipalities of Central Zelaya
ASOCHOM	Association of Municipalities of Chontales
ATI	International Technical Assistance
ATN	Nicaragua Telecentre Association
ATP	Chief Technical Advisor
BPM	Municipal Best Practices Program
CADIN	Nicaraguan National Chamber of Industries
CAFTA	Central American Free Trade Agreement
CAM	Municipal Affairs Committee of the National Assembly
CDD	Departmental Development Council
CDM	Development Municipal Committee, Municipal Development Committee
CED	Departmental Executive Board
CEN	National Executive Board
CHF	Foundation for Corporative Housing
CIDEL	Regional based ICT service enterprise
CMS	Content Management System.
CNDD	National Commission for Decentralization and Local Development
CODEBO	Departmental Development Council Boaco
CONICYT	Nicaraguan Council of Science and Technology.
CPC	Council of Popular Power
CSE (SEC)	Supreme Electoral Council
CSJ	Supreme Court of Justice
CUC	Unique Accountability Form
DGA	General Directorate of Customs Services
DGCAM	Directorate General of Municipal Civil Service attached to the MHCP
DGI	General Directorate of Revenues
DGTEC	Directorate General of Technology. Under the Ministry of Finance and Public Credit.
eLAC	Ministerial Conference Information Society in Latin America and the Caribbean
ENITEL	Nicaraguan Telecommunications Company
ERCERP	Strengthened Growth and Poverty Reduction
ERP	Enterprise Resource Planning
FADES	Auto Strengthening Social Development Management (Finnish cooperation)
FCG	Finnish Consultant Group
FISE	Social Investment Emergency Fund
FITEL	Telecommunications Investment Fund, attached to TELCOR
FMI	International Monetary Fund
FOMEVIDAS	Strengthening of Rural Development and Sustainable Livelihoods
FONIM	Support Fund Transfer Systems externally funded
FSLN	Sandinista National Liberation Front
GDP	Gross Domestic Product
GME	Electronic Municipal Government
GPS	Global Positioning System

GSM	Global System for Mobile Communications
HSDPA	High-Speed Downlink Packet Access
IBI	Tax on Real Estate
ICT	Information and Communication Technology.
ICT4D	ICT for Development
IMF	International Monetary Fund
IMI	Municipal Income Tax.
INATEC	National Technological Institute
INEC	National Institute of Statistics and Census
INETER	Nicaraguan Institute of Territorial Studies
INIFOM	Nicaraguan Institute for Municipal Development
INPYME	Nicaraguan Institute for Small and Medium Enterprises
ISP	Internet Service Provider
LAN	Local Area Network
MAGFOR	Ministry of Agriculture and Forestry
MARENA	Ministry of Environment and Natural Resources.
MDG	Millennium Development Goals (United Nations)
MFA	Ministry of Foreign Affairs
MHCP	Ministry of Finance and Public Credit
MIFIC	Ministry of Development, Industry and Trade
MINREX	Ministry of External Relations.
MINSA	Ministry of Health
MPLS	Multi-protocol Label Switching
NEC	National Executive Council of Municipal ICT Program
NGO	Non Governmental Organisation
ODM	Millennium Development Goals (United Nations)
OMC	World Trade Organization
OpenOffice	Open Source Office package with editor, spreadsheet, presentations
PFIM	Municipal Institutional Strengthening Program
PGR	National Budget of the Republic
PN	National Police
PND	Nicaragua's National Development Plan
PMU	Project Management Unit
POA	Annual Operating Plan
POG	Global Operating Plan
PRODEMU	Program to Support Decentralization and Municipal Development
PROGESTION	Programme for Strengthening Municipal Management and Local Development
PyMES	SME - Small and Medium Enterprises
RAAN	North Atlantic Autonomous Region
RAAS	South Atlantic Autonomous Region
RUC	Unique Registry of Taxpayer
SEC	Supreme Electoral Council (CSE in spanish)
SETEC	Technical Secretary of the Presidency
SIAFI	Integrated Financial Management System
SIAFM	Integrated Municipal Financial Management. System
SIF	Cattle Brand Administration System
SIG	Geographic Information System
SIGFA	Integrated Financial Management System Management and Audit.
SINACAM	National Municipal Training Council.
SISCAT	Fiscal Cadastre System
SISCO	Accounting System of Municipalities
SISEM	Performance monitoring system of municipal services.
SISEM	Municipal Services System
SISREC	Municipal Revenue System
SME	Small and Medium Enterprises

SMS	Short Message Service
SNIP	National Public Investment System
TELCOR	Nicaraguan Institute of Telecommunications and Post
TELCOR/FITEL	Telecommunications Regulator - Telecommunications Investment Fund
TIC	ICT - Information and Communication Technologies
TIM	Municipal Computing Technician
TRANSMUNI	Municipal Transfer and Information System
UAP	Project Management Unit in Spanish
UAT	Technical Assistance and Support Unit
UCA	Central American University
UCODEL	Communication Unit for Local Development
UMTS	Universal Mobile Telecommunications System
URACCAN	University of the Autonomous Regions of the Nicaraguan Caribbean Coast
VoIP	Voice over Internet Protocol (VoIP), Digital Voice Communication
VPN	Virtual Private Network
WSIS	World Summit on the Information Society

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ANNEXES

1 Executive Summary

This document is the result of the Final Evaluation mission of the Municipal ICT project that was carried out in December of 2011. The project was funded by the Government of Finland and the Government of Nicaragua. This project was formulated on the basis of needs identified by the project PROGESTION that was also active in the same 20 municipalities of Boaco, Chontales and Central Zelaya. The project began in June 2006 with the signing of the international agreement, however the activities and recruitment of personnel were delayed until mid-2007. The project closed activities in July 2010 and it closed administratively in October of that same year.

Objectives and management model

The project's general objective was: "To improve and strengthen democratic processes through the use of Information and Communication Technologies (ICT)."

The project aimed to achieve three results:

1. Implement ICT hardware and software to improve internal communication in the 20 municipalities and between municipalities and central government entities.

2. Improve channels of citizen participation in local government, transparency and coordination structures for local economic development.

3. Strengthen the capacities of INIFOM for institutional management and support other state agencies in communication and data transfers with the municipalities.

The project operated with a Project Management Unit, PMU, with a Departmental Executive Council in each department and the National Executive Council (NEC), which approved the POAs (annual plans) and budgets. The funds were channelled through the National Budget of the Republic of Nicaragua.

Institutional Context

Project formulation and signing of the financing agreement took place during the Government of Enrique Bolaños, but the beginning and almost the entire execution coincided with the Sandinista Government led by Daniel Ortega. The partner institution, INIFOM (the Nicaraguan Institute for Municipal Development), was reformed at the beginning of the Sandinista period and immediately objected to the model of project management where decision-making power was concentrated in the NEC, with a dominant presence of mayors who were not of the same political affiliation as the Government.

This dilemma, in which the funds were controlled by INIFOM who did not agree with the management model through the PMU and the CED and CEN, could not be resolved for the duration of the project and this seriously affected the effectiveness, efficiency, impact and sustainability of the project. Through mediation of the Nicaraguan Foreign Ministry, the project moved from INIFOM to the Ministry of Finance and Public Credit (MHCP), and this resulted in a short but dynamic period of implementation of activities in 2009. But the problems persisted; apparently INIFOM´s attitude had permeated to other entities. In late 2009, the Embassy de-linked the project from the institutional sphere of Nicaragua, and the last activities were carried out directly through a consulting firm.

The context of the project has been prone to many changes in the technical sense, because the country was going through a period of full expansion of coverage of communication services. In the political dimension, however, the context was not favourable, as there were trends towards less and less respect for the decentralization of state power, municipal autonomy, equitable participation in elected local governments and in terms of transparency.

Efficiency

The institutional uncertainty caused long periods of inactivity, which has lowered the efficiency

of the project. For four years, a unit of International and National Technical Assistance was maintained without the possibility to produce any of the expected results. The configuration of the Project Coordination Unit, in combination with the channelling of funds through an institution that was in disagreement with the project´s management model, took away the necessary flexibility. This further affected the efficiency in a negative way.

Effectiveness

It is estimated that during more than half the time available to the project, activities could not be executed normally or the project did not have normal access to the necessary funds. Obviously, this has affected the extent to which the proposed activities could be executed, and when there were periods of operation, the activities were implemented hastily.

As regard to the **first result**, most of the implementation of the proposed technologies was achieved; computers, servers, inverters, modems, routers and the installation of internal networks in the municipalities and access to the Internet. In general, this was performed as scheduled and in this regard the respondents had a generally good opinion about these innovations. Systems to improve the Civil Registration and Land Registration were discontinued because the agreements with national organizations like CSE and INETER could not be reached. The cattle brand registration system was installed successfully, and this system satisfies the needs of the municipalities.

To mount the Municipal Management System, an experimental version of an "open source" program was chosen. Although this should be the main program to be introduced, it has not worked as expected. The choice of program and some of the adaptations made were inadequate and at the time of this evaluation, experts were still trying to put the program into operation.

The Web pages, or portals, made for each municipality, were built according to schedule. The mission observed, however, a very different use from municipality to municipality. Some make a good use of the webpage and maintain a dynamic portal, while others seem not to perceive the benefit of a portal and in these cases the use is a bit passive and static.

Rapid changes in information and communication technology drive the need for ongoing institutionalised training, which could not be provided by the project. The training provided during the project was of high quality and very well received by the beneficiaries.

Regarding the **second result**, the project's progress has been less and it was able to perform only part of the planned activities. It was done partly by the elaboration of a communication strategy with each of these municipalities through a consultancy. Although this is highly relevant, the project was not able to sufficiently accompany these processes and at the time of this assessment there was not much evidence of its implementation.

The CIDEL, the Information Centers for Local Development, were not installed as planned, and this part of the budget was turned into a fund to support civil society initiatives. Support for the Social Communicators Network and Departmental Development Council was not successful because the current government tends to replace these bodies with others, more aligned with the ruling party.

The project supported ENITEL in the expansion of the mobile phone network through the identification of more than 40 locations for antenna towers. In effect, this resulted in the construction of 15 new towers.

Regarding the **third result**, the project encountered serious problems caused by the disagreement between the project and INIFOM, which not only led to discontinuation of support to this institution, but also hindered the possibilities of the agreements that were planned with INETER (for cadastral system), CSE (to establish a system of civil registration), AMUNIC (to manage the portals of municipalities and other strengthening actions), DGTEC (to establish a framework for e-Government), DGI (to establish a data exchange system RUC-VAT) and other entities such as the National Police and Supreme Court to improve the connectivity of their offices.

It is worth mentioning the successful project for the connectivity of the MINSA rural health posts with headquarters in Managua. This system has been achieved and represents a major technological breakthrough and means substantial savings through the cancellation of phone lines that are no longer needed with the introduction of this new Internet technology.

Impact

The project has had significant effects within these municipalities; data is handled better and more safely. It has improved internal communication and the new systems allow for more efficient management and better service to the public. However, in view of the overall objective, which refers to the deepening of democracy, the mission did not observe a significant change. That is, the realization of some of the expected results is a fact, but this did not contribute significantly to the strengthening of democratic processes and good governance. On the one hand, this is a consequence of the political environment; on the other hand it is a consequence of the rush caused by the suffered delays, as well as the emphasis on purely technical aspects of the PMU.

Sustainability

Because of the problems that did not allow the execution of much of the planned activities, there will be very little sustainability of the Results 2 and 3. In addition, it is of concern that throughout the duration of the project the disagreements with INIFOM were not resolved, and as a consequence, little can be expected from their efforts to maintain the achievements of the project.

Another worrying factor is the rotation of personnel in charge of information technology in the municipalities. It is estimated that 70% of technicians trained by the project are no longer in their jobs; therefore most of the training given by the project has already been lost. Fortunately, the biggest municipalities are beginning to change their normal behaviours, and are tending to not fire the computer technicians after the municipal elections.

In the medium and long term sustainability of new software and hardware, as introduced by the project, will depend on the perceived benefits from the point of view of the beneficiary, the municipality, and its ability to support them. It is not necessarily a matter of budget, but rather of priorities. There is a difference between municipalities like Juigalpa, Boaco and Nueva Guinea that appear to have discovered the potential and benefits of ICT for better management. On the other hand in some small towns, another attitude is observed and some of the results, such as portals, might be abandoned in these municipalities.

The following chart summarizes the conclusions and recommendation which are presented in chapter 6.

Conclusions	Recommendations
The Municipal ICT project has been a **pioneering** project in introducing the concept of using ICT tools for integrated management in local government and despite the obstacles encountered, the project has carried out many of the proposed activities.	The mission recommends Finland should continue on the road of support to democratic processes through the introduction of ICT tools. It is considered to be a good concept.
The project was **relevant** at the time of its design. However, during the course of the project it found itself in a rapidly changing environment, to which it did not adapt, which caused the loss of its relevance with respect to national policies. The political	This approach requires a positive and willing political and institutional environment. The mission doubts if the right conditions for these processes exist in Nicaragua today. In other words, the mission recommends a replication of this kind of interventions, but on the condition

context since 2007 constituted an adverse environment for the overall objective concerning the deepening of democracy. Towards the end the development of the project outside the national institutions has affected the efficiency, effectiveness, impact and sustainability of the intervention. However, the relevance with regards to the needs of local governments is high and was maintained for the duration of the project.	that a fertile political environment is guaranteed. The mission recommends investigating the feasibility to achieve direct agreements with the Autonomous Governments of RAAN and RAAS to create the conditions that make a successful ICT project in support of municipalities possible in this part of Nicaragua. It is advisable to evaluate the possibilities to support the creation of a legal and institutional framework for determining the law, responsibilities, standards, formats and platforms for data exchange and communication between different levels of government in Nicaragua. Without these "rules of the game" the risk of creating "technological islands" and incompatibilities remains. That will hinder the organization of data exchange, necessary for a future e-Government. Beyond Nicaragua the strengthening of local capacities in ICT, decentralization of state powers and citizen participation is much needed; it is a matter of interest in most Latin American countries. The Mission recommends that Finland seek to replicate this experience in the countries that match not only their goals but also the practical approaches in this area.
Relevance / institutions. The disagreements between INIFOM and the PMU / Embassy of Finland led to a divorce between the project and the institutions of Nicaragua, even after the transfer to the MHCP as counterpart. The decision to opt out of the institutional environment and opt for direct implementation is understood from the historical commitment of Finland to the municipalities of this part of the country, but also calls into question the relevance of the Paris Declaration, signed by Finland.	The modality of channeling funds through the national Budget is in line with the Paris Declaration, but should only be used for sectoral approaches and budget support or basket funds when there is a real understanding and agreement about the purposes and goals of such programs between donor and recipient country. On the basis of this study, we might add the necessity of an understanding about the ways of carrying out these programs with transparency and respect for decentralization and democratic principles. Mechanisms and special clauses should always be in place to withdraw funding if trust and understanding between the parties cease to exist.
Efficiency. Disagreements with INIFOM led to paralysis and during a long period there was no clear definition of the legal and institutional framework, in which the National Executive Council of the project (CEN/NEC) could not meet and annual plans or budgets could not be approved. It is estimated that for more than half of the duration of the project operating expenses, salaries and other operational costs were incurred without producing results. This has significantly lowered the efficiency of the	This evaluation sheds doubt on the formulation process. Though it is not very clear how this process was conducted, enough arguments come out of this study to plead for more involvement of stakeholders in a participative formulation process. Enough time should be made available to reach understanding and institutional compromises; this should really be a process, respecting institutional decision-making and probably cannot be reached in a couple of weeks.

project.	
Efficiency / management model. The hybrid mode of execution which made use of a Project Management Unit, a Logical framework and specific outcomes, in combination with channelling funds through the partner institution, has led to further in-operability in the execution. Most of this in-operability was caused by the fact that INIFOM was in disagreement with the model of administrative and financial management, agreed with the previous government. However, this mode of execution via the national budget is not appropriate for defined projects in specific areas and with targets that are not those of the Government.	The modality of channeling funds through the national Budget is in line with the Paris Declaration, but should only be used for sector approaches and budget support or basket funds when there is a real understanding and agreement about the purposes and goals of such programs between donor and recipient country. On the basis of this study, we might add the necessity of an understanding about the ways of carrying out these programs with transparency and respect for decentralization and democratic principles. Mechanisms and special clauses should always be in place to withdraw funding if trust and understanding between the parties cease to exist.
Efficiency / Management and Fund Channeling Modalities. The modality of channeling funds through the national Budget is in line with the Paris Declaration, but was not the adecuate modality for the Municipal ICT project which had it own specific goals, principles, area of interventions, beneficiaries and managements scheme that were not necessarily shared by the Government. In some ways, it even went against some vested interests (INIFOM).	See previous recommendation
Efficiency / Monitoring. Monitoring mechanisms have not worked as expected due to the lack of conformity of INIFOM with the decision making through NEC. A mid-term review of the project was not done. The mission believes that this is a missed opportunity because an assessment in the midst of these problems could have been a possibility to find solutions to the paralysis.	The Logical Framework is a useful tool to monitor and evaluate an intervention, but it should not become a straitjacket. Enough flexibility should be sought by the Embassy and MFA to adapt the logframe to changing circumstances. When the circumstances change to such a degree that the project loses relevance, a project should be renegotiated and modified to ensure lasting relevance. In the extreme case when there is no possibility to find common ground, ending a project should be a serious option, rather than continue a project that has no real possibility of success. The indicators of the Logical Framework should be formulated with more care. Instead of referring to external studies and surveys, a project must actually produce these indicators and have them available both for its own monitoring system as for external monitoring and evaluation. Baseline studies and values for these indicators must be constructed in the formulation phase (again: this needs sufficient

	time) and in order to avoid additional workload, indicators must be simple to understand, monitor, measure and register.
Effectiveness / Implementation ICT. The introduction of ICT technology in Local Government has been largely achieved. The project has made a significant effort and has transformed the operation of these municipalities. Some of these municipalities have entered the era of automation and modern communication for the first time. The confidence Finland enjoys in the region, built up during several preceding projects, and the expansion of the telephone network coverage have been positive factors in this process of change. It is observed that the smaller municipalities that could have benefited the most from the project are the same ones that have reluctant mayors, which sometimes reduces the benefit.	In future projects like this, the mission recommends that a typology of municipalities be made in the beginning of the intervention to avoid the case that municipalities that are advanced in ICT skills are offered the same technical package as those with lower technological capacities and levels of development. A more specific and tailored approach is needed if the differences between municipalities are considerable.
Efficacy / equipment and programs. The installation of computer equipment, servers and their investors (protection), local networks and Internet access has been satisfactory and was achieved in a short time. New programs were introduced and programs that were already in use now work with more protection and security. Cadastre programs and civil registration are hardly implemented by a few municipal governments. This has everything to do with the lack of responsiveness and collaboration of national organizations like INETER and CSE. Registration of cattle brands is the exception, since it had a high success rate.	Future programs must be based on a real understanding and agreement about the purposes and goals of such programs between donor and recipient country. On the basis of this study, we might add the necessity of an understanding about the ways of carrying out these programs with transparency and respect for decentralization and democratic principles.
Efficacy / Municipal Management System. A comprehensive computer program (ERP) for administrative and financial management (Municipal Management System) was installed in most of the municipalities but this program presented serious problems later. The decision to build the program on a platform of Open Source was taken without knowing all the consequences. Although it undoubtedly has advantages regarding use and low initial cost, the version used (community version) was inappropriate and was not designed for use in local government institutions. The amendments made by the PMU/UAP were not always appropriate. The stable version, needed for these municipalities, requires high-level professional assistance and therefore,	Similar future projects should opt for the use of open source software but choose modules and programs that are more compatible with the needs of small and medium local governments. The concept of absolutely free programs must be considered somewhat unrealistic, because the construction of relevant, efficient and stable programs tailored to local needs, and obtaining the necessary training will always require investment of resources in persons of high professional calibre. The Mission recommends using some of the remaining funds of the Municipal ICT project in repairing the introduced systems (especially the Municipal Management System) in the municipalities willing to use them. In connection with the above recommendation, ObèrTic should be asked to make a version that

additional costs to develop a version tailored to the needs. At the time of the introduction of these programs, these implications were seriously underestimated.	is actually Open Source and that is tailored to the needs of municipalities and release it as an open version to the Internet community. This allows the software to be improved with input from contributors all over the world in order to get a stable and tailored software program. This software could be made accessible to interested local governments throughout Latin America.
Effectiveness / communication: Mechanisms of automated data exchange have been improved within the municipalities through local networks (LAN), but in matters of data exchange among municipalities and between local and national levels, hardly any real progress was made, with the exception of the project with the Ministry of Health. The objective of simultaneously supporting the national institutions and local governments to foster communication between them, failed to materialize, due to INIFOM's opposition which eventually extended to other national institutions. Project effects are mainly found within the municipalities and are manifested in more efficient management and better customer service, but this has not always led to higher levels of communication or trust between the mayor and others (other municipalities, Central Government and the general public).	If the remaining funds permit it, it is further recommended to support the replication of support to the Ministry of Health. This could be done in a short span of time, and this support would be well received and respond to well-defined needs by the MOH.
Effectiveness / Portals: The portals have been created correctly and within a short time. However, the use of the websites shows a great variation between municipalities. It is noted that some municipalities make appropriate use of the same dynamic, while others show very little interest, especially in small towns or when the mayor is not convinced of the benefits that a website can potentially offer. In these cases there is little willingness and ability to use the portal as a dynamic means of communication. The mission is concerned that these municipalities still rely heavily on AIN to place their information in the portal.	In future projects like this, the mission recommends that a typology of municipalities be made in the beginning of the intervention to avoid the case that municipalities that are advanced in ICT skills are offered the same technical package as those with lower technological capacities and levels of development. A more specific and tailored approach is needed if the differences between municipalities are considerable.
Effectiveness / training. Technical training has been of a high level and was very well received. However, it requires constant and institutionalized training to continue the processes started. This was not achieved. Also the need to increase the awareness of mayors is considered not to have been achieved. This proved to be a determinant of success and consolidation of	This report also emphasizes repeatedly the continuing demand for ICT skills in the Municipalities. Future projects should seek to institutionalize training.

these processes of innovation.	
Impact. The intervention logic of the project suggests that through the introduction of ICT technology, a project can contribute to the deepening of democratic processes, transparency and civil participation. In reality, the project achieved the first step, the introduction of technology, but there is little evidence for the achievement of the second step, the deepening of democratic mechanisms. This has to do with the haste in execution, with adverse political environment, but also with the purely technical approach of the UAP. Introduced technology lends itself perfectly to achieving higher levels of democracy and participation. However, although ICT can be a tool for this process, it is by no means a guarantee of more democracy. It is the use of this technology and political decisions that determine if ICT tools lead to more democracy.	In regions similar to the area of intervention of this project, Finland should focus on the introduction of ICT and the causal relationship it may have potentially with democratic processes. This causal link is not automatic; the part of democratization should be emphasized more, not primarily the technical part. This implies that a project does not need only technical staff, but just as much needs staff with political sensitivity for the decentralization and participatory processes. It is also considered that it is not always necessary to invest in expanding the telephone network, as this is largely an autonomous process in these countries, which would also occur without external assistance from donors.
Impact. The project has contributed directly and indirectly to unintended or unexpected but positive results such as the Center for Training of Civil Servants in El Rama and the informal network of computer technicians in the 20 municipalities.	
Sustainability / Design. The sustainability of the results or purposes has not been sufficiently imbedded in the design of the project and during the decisions taken during the project. The Plan for Sustainability which was made by the project towards the end was "too little, too late". There are some perspectives of new programs taking over elements of the project, but the sustainability of a project should be sought in the appropiation by beneficiaries, not in other projects of the international cooperation.	The recommendations about involvement and compromise of stakeholders, participative formulation processes, flexibility and vigilance of the relevance during a project life cycle, all come together in determining the sustainability of an intervention.
Sustainability / Local Governments. What the program has offered is relevant to local needs but the short implementation time and the large volume of innovations has hindered the full assimilation of innovations by the municipalities. It is therefore considered to be an ongoing process that has not yet completed. The introduction of technology, despite the high quality of the training, has been carried out in a very short time and insufficient time has elapsed to allow for natural assimilation and appropiation. Great	

diversity is observed among the authorities: several are open to innovation while others show less open attitudes.	
Sustainability / training. The rotation of computer technicians has hampered the sustainability of results. It is a consequence of the Nicaraguan political practices but also responds to a shortage in the market. The mission concludes that the large municipalities are beginning to show some degree of professionalism that protects computer technicians from politically arbitrary decisions. In small towns, no such protection is observed and most of the human capacity created by the project has been lost in these cases. In such a short time, the project was not able to resolve the need for a permanent training for ICT staff.	This report also emphasizes repeatedly the continuing demand for ICT skills in the Municipalities. Future projects should seek to institutionalize training. Also, a support for the Training Center of Public Servants in El Rama or (in view of the existing support of the EC) similar initiatives could be considered to address the continuing need for training. Possible topics could be for mayors and administrators; introduction to networking, communication, data and the potential of portals. For technical staff: specific software configuration, security and network protection and data databases. For operators, the operation of the new software programs and customer service. Finally, it is useful and necessary to educate the general public in the use of new media and the access to public information Within this line of argumentation, future projects will have to seek and obtain some safeguards for the retention by beneficiaries of skilled staff. Part of the formulation process should be the budgetary commitments on behalf of the beneficiaries and political guarantees to maintain trained people in their posts.
The mission concludes that Finland has a good concept in its development cooperation in supporting democratic processes through the introduction of ICT tools.	The Mission recommends that Finland promote radio via the Internet in these projects. The sites show that there is an interest of people outside municipalities and outside the country that could be met through the Internet radio, which, while inexpensive, it is a way through which a small community can "put itself on the map".

	It is recommended that Finland supports the spreading of the concept of ICT for municipalities via the Internet. Domains like ticmunicipal.com, ticmunicipal.org ticmunicipal.net should be registered (these are still available). This could be implemented within the framework of a small project with the most active municipalities, AIN, a virtual marketing expert, and preferably with government support. Municipal ICT must be propagated as a concept. It should be based on Open Source, but not necessarily on a specific program such as Openbravo. This could attract a community of developers, users, and authorities around the world which would work together on improving programs. It could be connected to the municipal websites and the possibility of on-line assistance or links to training opportunities. Likewise, the link should be established with modern social communities (Facebook, Twitter, LinkedIn, Internet Radio). A Web page specialised in Municipal ICT shouldn't only contribute to the construction of specific programs, it could also connect the people involved and those who were trained by the project in the past as well as other stakeholders. Other new ideas that could be incorporated into the design of new projects may be: to provide public information via SMS. In view of the latest-generation mobile Internet and the fact that the mobile phone network expands rapidly in rural areas, the feasibility should be investigated of applications (apps) that allow access to public information (cattle brands, civil registration, cadastre, etc) through these phones.

2 Introduction

This is the Final Evaluation Report of the Program for the Integration of Information and Communication Technologies (ICT) Sector in Municipal Management and Decentralization in Nicaragua. In this report the program will be referred to as "the project" or "Municipal ICT Project."

This evaluation was awarded to the Finnish Consulting Group through a public bidding process that culminated in November 2011. The consultants in charge of this evaluation were Thomas Pijnenburg as Head of Mission and Theodore Vlaar, an expert in Information Technology, Communication and Development.

Under the stipulated terms of reference, the mission should issue an opinion on the implementation of the project and will take the logical framework as a reference during the assessment, knowing that there were profound changes in the environment that led to changes in the intervention. Yet, the results and impacts are measured with reference to the original objectives. As to the scope of this assessment, the four years of the financial agreement that ended in July 2010 will be taken as an object of study. The Embassy of Finland has contracted a third party to execute additional activities after the formal date of project closure. These activities are not part of this evaluation.

As this project is one of the first interventions in the municipal strengthening in Nicaragua with the approach of using information and communication technologies (ICT), it is also important that the consultants formulate recommendations to be considered in future similar interventions in Nicaragua or elsewhere.

The evaluation went through three phases:

1. **A preparatory phase.** This phase was dedicated to an analysis of the documentation made available to the consultants. At this stage, an Inception Report was produced whose content is basically the understanding of the ToR, proposed methodology and a detailed work plan and the formulation of specific research questions.

2. **A field phase in Nicaragua**. At this stage, the most important one, all information that cannot be found in the documents was collected. Institutional interviews were made and a trip to visit the municipalities of the area covered by the project. Below, a short description is made of the methodology used during this tour. This phase began on December 1st of 2011 and ended on 16th December. The consultants believe this is a very short period for evaluation work of this scope, but also consider they were able to interview a representative number of key stakeholders.

3. **A phase of data analysis** and preparation of this report. This last phase was developed in Europe from the home addresses of the consultants. It consists of the organisation, and analysis of all information obtained during the mission. Then a draft evaluation report is prepared. This report is delivered to the Embassy of Finland and the Ministry of Foreign Affairs of Finland. The observations of both will be subsequently incorporated into a Final Report.

The mission encountered some problems in the first days in meeting with the mayors and IT managers or technicians of the municipalities, despite the confirmation of the appointments made in advance from Managua. Thanks to the support from the Embassy of Finland this improved from the third day. It was also affected somewhat by the fact that in the course of the mission were some local holidays. Yet the vast majority of planned visits were possible and even some unplanned activities could be included such as the Cabildo in Nueva Guinea and the interview of representatives from the municipality of La Libertad.

The Terms of Reference of the mission asked for the opinion of independent consultants in various ways. Opinions should be formulated about the overall results of the project and its effects on democratic mechanisms, transparency and communication between local

governments and their people. It also requests the formulation of some recommendations that may contribute to the design of future actions in this environment of ICT and Local Governance, both in Nicaragua as in other countries with similar characteristics.

Special emphasis has been put on the political and institutional context of the project because the national environment has been very important in the development of the project and the changes that have occurred in its course.

Out of the 16 days that were available to the mission, 10 days were dedicated to field visits during which 12 of the 20 municipalities were visited. The interviews with the national institutions were conducted towards the end of the mission at the request of the Ministry of Foreign Affairs of Nicaragua. Another reason for organizing the interviews with national institutions in the end of the mission was the short time available, due to contractual issues. This is not very typical; usually these interviews are planned before the field visits. However, the advantage of this reversed order has been that the consultants were able to better prepare their questions based on the observations made in the field.

The methodology used by the Mission consisted of semi-structured interviews with the mayors as well as with technicians in the municipalities. In addition, the municipal associations and other relevant actors such as SILAIS in Juigalpa and representatives of the civil society in Boaco were visited. These interviews followed a list of questions raised by the consultants in advance and presented in the Inception Report. This list of questions was for the use of consultants only. It was not possible due to time constraints, to address all issues in each interview. Rather, it was decided on each occasion, what the most relevant questions were.

In all visited municipalities at least the following issues were treated: the Municipal Management System, Cadastre, taxation, the cattle brand registration system (SIF), servers, routers, investors, modems, gateways, Internet access and training provided by the project. In general, the questions were made in view of the relevance, effectiveness, sustainability and impact of the project from the standpoint of local governments. Finally, inquiries were made about the situation of the management, administration, mechanisms of participation and communication issues between the Municipal Government and the people. The list of questions has not been treated as a straitjacket; as the mission progressed, the consultants have gone deeper into the issues that were judged as most critical. The consultants organised a workshop with beneficiaries and local journalists in Nueva Guinea.

The consultants would have liked to have more time to investigate and substantiate evidence, but time constraints made it impossible to do more than the mentioned activities.

The measurement of the achievement of the results was done by combining the projects own presentations at its end with the observations made in the visited municipalities. The consultants found that some results or purposes were presented in a too positive way in project documents. The corrected results are presented in this evaluation report.

3 Context

In Nicaragua, the processes of democratization and decentralisation have been a bit hesitant with some successes and some disappointments. After the civil war between the Sandinista government and the Contras in the 1980s, the government of Violeta Chamorro was one of peace, normalization and reconciliation. The subsequent government of Arnoldo Alemán was plagued with many accusations of corruption and has been characterized by a centralized power.

Progress in terms of transparency, good governance and citizen participation mechanisms was limited. The government of Enrique Bolaños tried to establish measures to promote democracy and there was some progress in terms of mechanisms of citizen participation, transparency in local government management, participatory planning, efficient collection of taxes and other items that together led to a gradual improvement of the democratic functioning of municipalities. In short, it can be concluded that between 1990 and 2007 there was an improvement in the democratization process of Nicaraguan society.

Administrative autonomy enjoyed by the municipalities of Nicaragua has been an important element in this process. However, the real delegation of powers from central to local government has been slow during all governments from the Somoza era up to the present.

Since 2003, a process of adjustment to the system of transfers of funds from the national budget to local governments of the 153 municipalities of Nicaragua began. These transfers were to be increased from 3% in 2003 to about 10% in 2010. Although this process of increasing funding for these local governments effectively took place, the past decade has also shown that the funds do not automatically lead to higher levels of democracy. Other elements are needed such as effective mechanisms for citizen participation, transparency and citizen participation in planning and budgeting. And last but not least, it requires the improvement of technical and managerial capacities of local government staff.

It was within this logic that the Municipal ICT Project sought to improve the technical capabilities of the municipalities, so they would improve their management of information and the communication between municipal authorities and the central government, as well as between local authorities and the population.

The measures taken during the first period of this Government, and consolidated after the November 2011 elections, do not seem to have deepened democratic principles and practices. The concept of "direct democracy" was included in the National Human Development Plan for the Sandinista government in 2008 and 2009. Here, theoretically, ICT tools could play an important role in the mechanisms of citizen participation in local government. However, the implementation of this direct democracy is materialising via the CPC (Councils of Citizen Power). These councils, instead of strengthening the municipalities, are politicized and function as structures that operate parallel to the elected local governments.

Through these CPCs the Central Government can deliver programs, regardless of the Municipal Government. Where local authorities are not in line with party policies, the Central Government can thus override local authorities. This interpretation of democracy damages municipal autonomy and undermines the local elected authority. In addition, mechanisms for citizen participation as the Municipal Development Committees and Departmental and Civil Society Platform, who used to practice social audits, have lost power or are being marginalized. Mayors that are not aligned with the National Government are subject to pressures and at risk of not having access to national programs.

This recent trend, as we shall see below, appears to have interrupted the process of democratization that had gradually built up in the last two decades and has had serious consequences for the municipal ICT project. Its objective to support the deepening of democracy found itself increasingly in a more adverse environment.

The south-eastern part of Nicaragua, which is the scenario for the Municipal ICT project (and

other major projects such as FADES, PROGESTION and FOMEVIDAS), has a tradition of being a cattle ranching area. It is conservative and since the first Sandinista government of the 1980s, has been an area characterized by opposition, resistance and non-conformity with the Sandinistas.

Central Zelaya has distinguished itself as agricultural colonisation and settlement area for much of the last century and suffered a great isolation from the rest of the country. In the early 90's, most of the colonies and communities had no access by all time roads and communication technology was practically non existent until the late 90's. These two expressions of isolation have evolved in a relatively short time. At the end of the 90´s improvement of the road to El Rama was achieved and around 1997 an all season road was completed to Nueva Guinea.

Nicaragua, despite being among the countries with lowest GDP of Central America (estimated at 967 USD per capita in 2010[1]), has been able to significantly expand Internet access from 50,000 users in 2005 (2.2%) to 600,000 in 2010 (10 %). However, the use of Internet in remote rural areas is still very limited. In the rural area of the project this number is probably still less than 2%. This remains a limitation for projects that foster communication over the Internet. The instability of the electrical grid is also still a threat for computer equipment in much of the country and affects the lifespan of the equipment if not provided with adequate protection.

An additional factor is the lack of a true national policy on Information and Communication Technology, encompassing an action plan that determines the rules and protocols for standardization of information flows that may be contributing to the so-called e-government.

In the last decade, the expansion of mobile phone coverage including the possibilities of broadband Internet was sensationally extended. The use of cell phones today is a normal phenomenon even in many rural communities. Probably, in these communities internet via next-generation mobile phones will surpass internet access by regular computer equipment.

Obviously, some elements of this context are highly positive for a project that aims to increase the use of ICT, specially the booming and expanding technical possibilities of communication. The trend also shows that there is a very strong demand for knowledge about these new technological possibilities. In the last decade, these possibilities have expanded much faster than the relevant skills.

[1] http://www.internetworldstats.com/am/ni.htm

4 Short Description of the Project

4.1 Goals and Expected Results

Some needs of municipalities, identified during the implementation of PROGESTION, gave reason to the formulation of a new project to support the mechanisms of local democracy through information and communication tools. Among those needs were:

- The lack of information tools and channels of communication between municipalities and central government that resulted in high costs for staff as they travel to and from Managua when municipalities need to communicate with the central government. There were also many problems related to data security, backup of data, maintenance, sharing of resources, and information flows.

- The lack of transparency in the processes of local governments, public investment and public services, including limited access to mechanisms of dialogue with the municipalities resulting in a low level of citizen participation in decisions affecting them. Likewise, there is little communication between municipalities and between local governments and their populations, especially in rural areas.

- It was necessary to strengthen the capacities of INIFOM increasing its credibility and potential to provide services to municipalities, and through these services facilitate the empowerment of municipal staff.

Given these phenomena, the overall objective of the Municipal ICT project was formulated as follows:

Improve and strengthen democratic processes and governance through the use of Information and Communication Technologies (ICT).

To contribute to the development objective, and in direct response to the identified problems, the following purposes or results for the Program were defined:

Result 1: Twenty municipalities are using ICTs to improve and achieve more efficient communication with the central government and to coordinate among the municipalities.

Result 2: Through the use of ICT, 20 municipalities have improved their channels for citizen participation, transparency mechanisms and local government coordination structures for local economic development.

Result 3: Capacity building in INIFOM results in greater access to appropriate tools and systems for corporate management, thereby improving the performance of its main functions, that is, to provide adequate and timely support to the municipalities.

To achieve the first Result the following products were expected:

- Internet connectivity and local area networks installed in the 20 municipalities, including possibilities of using voice over IP telephony.

- Twenty municipalities have been strengthened with adequate computer equipment and updated (workstations, scanners, fax machines, printers, etc.).

- Automated Civil Registry and the Registry of cattle brands have been established in 20 municipalities.

- Creation of an Internet portal in each municipality for communication and the creation of mechanisms of interchange of information to and from the central government.

- Training of municipal staff ensures the efficient use of software and hardware installed.

To achieve the second Result, the following products were expected:

• Three Information Centres for Local Development (CIDEL), which are small regional ICT services, have been installed, FM radio stations in working order, and Internet portals that provide information of public services based on citizen feedback.

• It provides for better direct communication channels among rural populations, 20 municipalities, departments and organizations CIDEL, based on technologies and GSM communication equipment (eg two-way radio).

To achieve the third result, the following products were expected:

• INIFOM staff has been trained to improve ICT services that are provided to municipalities, preparation of Terms of Reference (ToR), procurement procedures, supervision and maintenance.

• Established agreements with national (AMUNIC, INETER, MHCP, CSE, CSJ, Police, Ministry of Health, DGI, TELCOR / Enitel DGTEC) to install automated flow of information between them and the municipalities.

4.2 Beneficiaries, Scope and Budget

The indirect beneficiaries are the inhabitants of the Departments of Chontales and Boaco and Central Zelaya. The direct beneficiaries are the twenty municipal governments of this region of Nicaragua as well as municipal associations and entities involved. These municipalities are:

In Boaco:
Camoapa, Boaco, Teustepe, San Jose de los Remate, Santa Lucia y San Lorenzo.

In Chontales:
Comalapa, San Francisco de Cuapa, Juigalpa, La Libertad, San Pedro del Lovago, Santo Domingo, Acoyapa, Santo Thomas, Villa Sandino y El Coral.

In Zelaya Central:
Nueva Guinea, El Rama, Muelle de los Bueyes y El Ayote.

Associations of Municipalities that benefited from the project:

- AMUB: Associations of Municipalities of Boaco
- ASOCHON: Associations of Municipalities of Chontales
- AMUZEC: Associations of Municipalities of Zelaya Central

For the execution of some activities, the project has signed agreements with third parties, for example TELCOR for the expansion of the cellular telephone network, in relation to the central registration of cattle brands and to improve the transfer of data of the Ministry of Health. For the construction of the portals (Web sites) agreements were made with the Internet Association of Nicaragua, AIN.

The project budget was € 5,300,000,00 of which the Government of Finland was committed to the contribution of € 4,949,800.00 which represents 93% of the total. This BUDGET is distributed between budget lines as follows:

Contribution of the Government of Finland (Euro)

ITEM	Amount
International Technical Assistance	1.454.335,00
Programme Management Unit	855.000,00
R1: Twenty municipalities are using ICTs to improve and achieve more efficient communication with the central government and to coordinate among the municipalities.	834.000,00

R2: Through the use of ICT, 20 municipalities have improved their channels for citizen participation, transparency mechanisms and local government coordination structures for local economic development.	717.000,00
R3: Capacity building in INIFOM results in greater access to appropriate tools and systems for corporate management, thereby improving the performance of its main functions, providing adequate and timely support to the municipalities.	335.000,00
Contracts by the Embassy of Finland	103.000,00
Contingencies	651.465,00
TOTAL POG	**€ 4.949.800,00**

Based on the documentation consulted by the Mission, specially the final financial report of october 2010, the percentage of execution of the International Technical Assistance is not known, but the following figure reflects the percentage of execution of the 3 components (results) and the PMU.

Financial execution of the main components and PMU, Funds from Finland

Components	**Budget***	**Executed**	**% executed**
Component 1 – Ict in Townhalls	1.820.022,00	837.119,73	46%
Component 2. Communication	597.079,00	257.193,25	43%
Component 3. Strengthening of national Institutions	556.392,00	176.058,40	32%
Project management Unit	776.507,00	639.072,97	82%
Total components	3.750.000,00	1.909.444,35	51%

*adjusted POG February 2009

Only 37% of the commitment of the Government of Nicaragua was actually implemented by MHCP and INIFOM. This was distributed as shown in the table below. Taking the real figures of the Nicaraguan contribution, € 130,651.46, and assuming that Finland will spend the remaining funds in the follow up activities, as in fact is being done, Finland would fund 97.5% of expenditures. The mission believes that a contribution of 2.5% is too low and does not reflect a real commitment by the Government of Nicaragua and may constitute part of the explanation of the little interest shown for their part in the course of the project.

Contribution of the Government of Nicaragua to the Budget (Euro)

Counterpart	**National Budget Contribution**	**Executed**	**% Execution**
INIFOM		€ 11,182.32	
MHCP		€ 119,469,14	
TOTAL CONTRIBUTION	**€ 355.000,00**	**€ 130.651,46**	**37.33%**

The remaining part of the funds approved in 2009 was reassigned to other programs. In total 316.823 Euro was used in follow-up activities in 2011. 230.000 Euro remains from funds approved in 2010 and could be used in 2012.

4.3 Management Model

The Municipal ICT project had a project management unit, PMU (UAP in Spanish) and had a logical framework and specific objectives, as is common in autonomous projects with direct management. At the same time, the project funds were channelled through the national budget, as is normal in budget modality. This way of channelling the funds is done not only in budget support, but also in the institutional support modality.

The management model of the Municipal ICT project was a hybrid with a combination of the PMU - characteristic of traditional projects - and the channelling of funds through state institutions - characteristic of basket funds or budget support. This kind of hybrid management proved not to be very effective as we shall see below.

Under the agreement between Finland and Nicaragua the project was supervised by three Departmental Executive Councils (DEC) and a National Executive Council (NEC) which operated with the participation of mayors, other local actors and INIFOM. Major decisions such as the approval of a POA (Annual Action Plan) or a budget were taken in the NEC. The PMU was responsible for the daily implementation in coordination with local authorities and using the structure of the Associations of Municipalities (AMUs).

4.4 Key Moments of the Project

As described in various parts of this report, the project developed in a complicated institutional and political setting. The institutional location underwent several changes during the 4 years of implementation. The following scheme highlights the major defining moments.

Year	Month	Event
2001		The need for an ICT project is identified for the first time
2005		Municipal Development of ICT POG is written
2006	June	Municipal ICT Firm Convention between Finland and Nicaragua
2006	Sept	Arrival Chief Technical Adviser
2006	Nov	National Elections, the FSLN wins
2007	Beginning	The Sandinista Government takes over power
2007	Beginning	Start of INIFOM restructuring
2007	May	Recruitment of Project Staff
2008	June	Between Foreign Ministry and Embassy decision is taken to move the project to MHCP
2008	Jun-Sep	Bridging Phase: Administration by the Embassy. INIFOM reimburses remaining funds
2008	Aug	Embassy signs agreement with AIN for web portals
2008	October	Official transfer to MHCP program. MHCP signs contracts with: Association of Municipalities, AMUNIC and TELCOR-FITEL.
2008	Nov.	Municipal Elections
2009	Febr.	Closure of PROGESTION
2009	March	Second version of POG
2009		Portals are implemented, municipal equipment, training of technicians and operators of systems, servers, battery packs etc. in 20 municipalities.
2009	1st Trim.	There is no consensus for the meeting CEN
2009	July	Embassy of Finland takes the decision to run the program under direct management mode and informs MINREX. Embassy signed cooperation agreements with AMUB, AMUZEC, and AIN. No agreement is reached with ASOCHOM
2009	August	Ramboll-Finconsult Unit Manager directly supports the project, PMU.
2009	Dec.	End of contract CTA Jens Riis
2009	Dec.	Proposals MHCP for the national budget of the Republic do not

		include funds for project
2010	Febr.	New CTA Carlos Becerra (Ramboll Finnconsult) starts contract
2010	Jun.	Proposal for support and sustainability
2010	July	The agreement between countries about the Municipal ICT project concludes
2010	July, 20	Administrative Closure - Municipal ICT
2010	Oct.	At the request of Embassy - MFA approves extension to October 2011 to implement the sustainability plan
2010	Oct. 15	Presentation in Boaco Municipal ICT closure.
2011	Nov. 6	Presidential elections, FSLN wins again
2011	Dec.	FCG Final Evaluation
2011	Dec.	Continued repairs by OberTic to the Municipal Management System (SGM)
2012	March	OberTic puts on trial renewed version SGM

At the end of the term of the Agreement between Nicaragua and Finland, which formed the legal framework of the Municipal ICT project, due to the many delays suffered, many of the activities were not fulfilled. Given the political and institutional situation, there was no incentive to prolong the agreement. But the Embassy of Finland, committed to the 20 municipalities and worried about the culmination of processes, carried on with additional activities without a well-defined international or institutional framework. This decision was made from the conviction that just a few months of extension were needed to ensure the consolidation of results because results at this time were just beginning to take form. However, at the time of this review, activities were still being carried out through consultancies to complete this process.

5 Evaluation

5.1 Relevance

5.1.1 Origin and Design

The project comes from previous projects of the Finnish Government in Nicaragua, in particular the project PROGESTION, which was acting in the same 20 municipalities of Boaco, Chontales and Central Zelaya. During the latter project a needs assessment of the Information and Communication Technology (ICT) for support to municipalities and their associations was conducted. The evaluation mission believes that Finland has been successful with the concept of Municipal ICT and that the project has been pioneering, innovative and renewing in the field of ICT Municipal.

The consultants believe that the design of the project is consistent with the policies of Finland's development cooperation, particularly with regard to the guidelines regarding the inclusion of ICT as an integral part of development. The project design is especially relevant with Finland´s Development Cooperation. Finland has a tradition of supporting countries like Nicaragua in matters like building democracy, Good Government, Local Governance, transparency and decentralization. This Municipal ICT project fits very well in this tradition and is completely relevant.

Relevance was also found with regard to the guidelines regarding the inclusion of ICT as an integral part of development. Similarly, in the international arena the consultants encountered equal relevance with international platforms such as the WSIS that in the framework of the Action Plan for Latin America and the Caribbean (eLAC 2007) proposes to increase the percentage of the population with Internet access, improve training in the use of these technologies and connect the local governments to Internet.

These international platforms also emphasize the relationship between these objectives and the Millennium Development Goals (MDGs) agreed within the United Nations, which would also mean relevance and coherence with the agreements of the United Nations, also signed by the Government of Finland.

The Municipal ICT project originated from needs identified by the project PROGESTION, and followed perhaps a somewhat hasty formulation in which the formulators copied the mode of execution through the INIFOM structure, despite knowing that this configuration had already given problems in the past. It was thus to be expected that these problems were going to repeat, or rather, continue in the Municipal ICT project. And indeed this happened. From the beginning this caused significant delays in the effective implementation.

The relevance must always be measured against the context of an intervention and as this context changes, the relevance of the intervention may increase or decrease in the course of a project. This has been the case with the Municipal ICT project. The changes in the project's environment have been very significant in two ways, technically and politically.

Technically, and this is already mentioned in Chapter 3, the context has changed dramatically between the start of the project and the time of this evaluation, but in a positive sense. The expansion of telephone coverage into even remote corners of the municipalities has meant a highly appropriate environment for the project. This has allowed the project to 'go with the flow'. The telecommunication boom in the region has been an autonomous trend, led by forces outside the project. This means that, without the project probably the same phenomenon would have occurred[2]. On the other hand, due to the fast development of technology, some of the software and hardware were state of art technologies when they were introduced, but will soon no longer be the latest in the market.

Politically, the context also evolved dramatically but unfortunately not in favour of the project.

[2] Without wishing to ignore the contribution of the project to identify strategic locations for the construction of mobile phone communication towers, the mission believes that much of the expansion would have been there, even without this support.

As described above, the present Government of Nicaragua has not given evidence of a genuine commitment to the deepening and consolidation of democracy. To put it another way, it has its own interpretation of the term 'democracy', not one that strengthens and actively deepens municipal autonomy, the decentralization of central power, the equitable participation of citizens in the decision making of elected officials; and it has not been characterized by promoting transparency at all levels.

Therefore, the relevance of the project with government policies, or rather with the actual policies implemented by the Government of Nicaragua, has declined over the course of the project. This is not considered a deficiency in the design of the project, since external factors are not within the scope of the project and the changes occurred after the project started. The mission believes that at the starting point of the project it was relevant to the policies of the State of Nicaragua, but it ceased to be so in the course of time.

The open politicization of state institutions, such as INIFOM, explains that by becoming a partisan political operator, this institution ceased to be the ideal partner for the project. The interests of the municipalities do not always coincide with those of the Central State and the more centralized the Central Government operates, the less a government entity as INIFOM represents the interests of the municipalities.

The beginning of the project coincided with the takeover of the new Sandinista Government and a reform of INIFOM in 2007. From the first moment there was no consensus about the control and management of the project. INIFOM insisted on assuming the leadership and financial control while on the side of the PMU and the Finnish Embassy the agreed use of the CED and the CEN was emphasized, thus involving mayors. Following an alleged mismanagement of project funds, intended for the purchase of equipment for INIFOM, the discussion about the project execution worsened.

One could suspect from the time of the formulation of project that the objectives did not coincide with those of the institution. INIFOM has acted in recent decades as a link, a mandatory step, connecting municipal governments and the Central State Entities. An example of how this can be changed by new procedures is the introduction of TRANSMUNI, which automates the supply of data and accountability to the MHCP and effectively reduces the role of the INIFOM as an intermediary between municipalities and the central state. From INIFOM´s point of view, the project's objectives related to the increase of direct connectivity of the municipalities to the state institutions in the fields of cadastre (INETER), identity cards, Civil Registry (CSE) and Taxes (DGI) was interpreted easily as something that could be detrimental to the role of INIFOM. That is, the direct connectivity of municipalities with these national institutions, as the project sought to achieve, could easily threaten the position of INIFOM and lead to loss of relevance on the national stage. From this perspective, not much support from INIFOM should have been expected from the beginning. In fact, according to the analysis of the PMU, this is the real reason for the problems experienced throughout the project.

The struggle for the control of the project continued, even after the project's transfer to the Ministry of Finance (MHCP) by the intervention of the Foreign Ministry. This move did not solve the dilemma and the disagreement of INIFOM with project management became a problem at the highest levels of government. Finally MCHP was forced to retire as a counterpart for the project. It refrained from including the financial contribution for the project in the budget of the Republic at the end of 2009. So, effectively, the relationship between the project and government came to an end.

The project was thus marginalized from the country's institutions, but due to its commitment to the 20 municipalities, the Embassy of Finland decided to continue activities through the consulting firm Finnconsult Ramboll. In this last phase, some activities that were not foreseen in the overall work plan were also developed or continued.

With these modifications, the project not only decreased the relevance to the policies of the Government of Nicaragua, but also with the Cooperation Policies of Finland, as a signatory of the Paris Declaration of 2005[3]. It is justifiable to ask the question whether it would not have

[3] www.oecd.org/dataoecd/53/56/34580968.pdf

been better that Finland withdraw from the project entirely, or sit with the new authorities to renegotiate the project and secure the support to the national institutions. However, to be fair, the Mission considers that there was probably no way to reconcile the objectives of deepening local democracy with the current aims of the Central Government. Thus, the only options left were a total withdrawal or to continue working directly with the local governments.

Obviously, this observation is somewhat severe but is made in view of the framework of the principles of the Paris Declaration. It does not have the intention to downplay the achievements that the project undoubtedly has achieved for many municipal governments.

In the technical sense, the Mission considers that the project design meets the needs of local governments. Of course, not all municipalities were in the same technological level, but in general it can be concluded that the results sought by the project were based on the needs and objectives of these 20 municipalities.

5.1.2 Observations on the Logical Framework

The reference for this evaluation is the logical framework of the project. It is based on the Logical Framework POG1 and POG 2 which are identical[4]. The changes in the project environment apparently did not lead to changes in the Logical Framework. It is considered that the project objectives should have been adjusted by the time the project had reached the halfway point and no results were achieved.

The logical sequence of the Logical Framework is considered fairly adequate. However, the distance between Project Purpose and Overall Objective is a very big leap. As this evaluation demonstrates, one can make substantial progress in the results without automatically contributing to the overall objective, the "deepening of local democracy." So, it can be concluded that the causal link between the introduction of technology and more democracy was too easily assumed in the Logical framework and maybe unrealistic. Indeed, there are many political, cultural and historical factors in play that were not within the scope of the project.

The first hypothesis in the Logical Framework is; *"the (Central) Government gives priority to local democratic processes and supports the vital institutions in assisting the local governments".* This assumption has not materialized and therefore affects the extent to which the results lead to the Overall Objective. It not only affects the impact of the project, it also affects the efficiency and substantially reduced the ability to effectively support the connectivity between local and national institutions.

The Logical Framework includes many indicators in non-numeric terms, making it difficult to measure the progress of each result. Also, reference is made broadly to surveys and questionnaires to measure indicators[5]. In fact, at the time of this evaluation none of these sources were made available to the Mission, probably because they do not exist. Nor did the short time available for the Mission in the field, allow the team to perform any of these studies.

In conclusion, the logical framework had serious limitations as a reference for this evaluation. The main sources of information were the interviews, the field visits and the documents the consultants received.

Good use of the Logical Framework includes the ability to modify it when changes in circumstances require it. In retrospect, if the Logical Framework would have been adapted, for example when preparing the POG 2, one could have eliminated activities that were no longer feasible, and include new ones.

[4] The mission asked for all the versions of the Logical Framework at the meeting of the Briefing. Only this Logical Framework was made available and the evaluation was based on the assumption that there was no other.
[5] More than 10 indicators refer to “surveys and questionnaires” that, to the knowledge of the consultants, do not exist.

5.2 Efficiency

5.2.1 Availability of Funds

The availability of funds has been a problem for most of the project execution time. A report by the PMU towards the end of his contract estimated that over 70% of the time the project did not have the necessary funds available for the smooth implementation of activities and thus causing inactivity. The periods of inactivity were caused by institutional and political problems which did not allow the determination of its actual place in the institutional setting of Nicaragua.

These idle times have been used as best as possible to perform activities that did not require the investment of funds, like research, programming and in general, the preparation for better times. It is for this reason that the project could execute a high volume of activities once funds were made available to the project.

On behalf of Finland there were no impediments to disburse funds. The impasses that characterized the project were caused by problems with INIFOM, being unhappy with the project and its implementation modality. Even when the decision was made to move the project to the Ministry of Finance and Public Credit (MHCP), the problems and state of paralysis continued to exist.

The mission found no evidence of waste of means and has not observed unnecessary investments. The overall opinion is that the investment of funds was relevant, appropriate and as planned. But still, the Mission considers that the efficiency of the project must be qualified as "low". This qualification is not a criticism of the project or its Management Unit, but is a consequence of exogenous factors. During 4 years the cost of wages, management fees and equipment were supported. But it was only for about one year that activities with an acceptable volume were developed. This fact was caused by the legal and institutional limbo, and weighs considerably on the efficiency of the intervention as a whole.

When it turned out that the problems continue even with the MHCP as the new counterpart, it was decided to make a rearrangement of the POA budget July 2009 - July 2010. This change meant that the contract with the International Technical Assistance and Local Program between the Ministry of Foreign Affairs of Finland and Finnconsult Ramboll Consulting was modified and that this firm assumed the direct implementation of pending activities without the allocation of new resources (given that the full implementation of the PMU for 2009-2010 is estimated to have about a remaining 20% of the total committed funds for further implementation).

It is proposed that the accounting statements are made in two cuts. The first in July 2010 before the end of the activities, the second before the October 20, 2010 deadline, as soon as the international technical assistance completed its operations in the country and concluded their stay.

In fact, at the time of this evaluation, the Finnish Embassy was still financing activities in the framework of the project, especially directed at the repair of faults that occurred in the use of the Municipal Management System.

5.2.2 Management Model

As mentioned in previous chapters, the Municipal ICT Project inherited the design and management approach of PROGESTION, already containing the seeds of later implementation problems.

The channelling of funds through the State Budget corresponded to the new forms of cooperation and the principles of improving the effectiveness of it. However, the PMU, the NEC and the specific objectives correspond more to the project approach. The combination of these two approaches within a single project did not provide for an efficient management model, and this was even worsened by the change of government in 2007. The new INIFOM as an institution claimed the control of the project, but in fact was it in the hands of the NEC/CEN

according to prior agreements. According to representatives of INIFOM control of the project was in the hands of the PMU because of the influence it had in the NEC. The dilemma was not resolved and this condemned the project to a long period of agony.

The method of channelling funds through national institutions also greatly reduced the much needed operational flexibility of the project. In practice, when changes in response to new needs and unforeseen issues arose, these had to be resolved before proceeding with the execution of activities as planned. This method functions in a project that has financial autonomy and flexibility, but it becomes extremely difficult when the budget is controlled by the Central Government.

As for management, in this embodiment, the Chief Technical Advisor has no financial decision-making authority. The model might be appropriate if the counterpart institution had the will and the capacity for effective management. In the case of the Municipal ICT Project this was not the case. As a consequence, the method followed has caused a significant amount of additional work for the staff of the Embassy of Finland.

The lesson here should be that budget support should be provided to support programs whose objectives, results and modalities of implementation and monitoring are shared between Government and Donors, but it does not lend itself to execute a specific project in a specific region with specific targets that are not those of the Government or the Institution in charge.

Finally, it is noted that the staff in charge of the PMU were computer technical professionals. In the complicated context of the project it may have been equally necessary, in addition to knowledge of ICT, to have experts in political science, sociology and / or strategic communication (lobby). On the other hand, if the problem was not solved at embassy level for such a long time, it probably would not have been possible at PMU level either.

5.2.3 Monitoring

The principle of the Departmental Council was to collect the opinions of mayors and other local actors and forward proposals about the project to the NEC. The fact that INIFOM had little opportunity to exercise their power in this Council was the main reason to oppose against these agreed procedures. As it was the INIFOM who convened the meetings of the NEC, not convening the meetings was a way to paralyse the project, as actually happened during an important period.

The Council was agreed under the previous government and was based on the principle of reaching consensus, and it was assumed that the stakeholders were going to respect the agreed rules. However, in this case the responsible government institutions have shown very limited respect for the agreed rules, and even less for reaching a consensus. Under these circumstances, it has been a serious complication that agreements between the governments did not provide for mechanisms for conflict resolution. This way, very few means were left to the Finnish Embassy to reach a compromise with the Central Government regarding the project.

The Municipal ICT project did not have a Mid-Term Review. The reason, as the consultants understood, was that there were no results available by the halfway point of the project. The mission believes that this may have been a missed opportunity, because evaluations can, through the issuance of external and objective recommendations or mediation, help making adjustments to a project in trouble.

5.3 Effectiveness

5.3.1 Introduction

The impasses described above had a significant effect on the possibilities for the proposed activities and expected outcomes. These effects occurred in two ways: first, the project showed a lengthy downtime (and in the short active period the activities were executed

hastily), and second, in the impediments to engage with National Institutions promoting communication between them and Local Governments.

According to a report by the PMU, from the 33 months that the program had operated with partner agencies, 24 months or 73% of that time the project has not had the resources for major investments. Additionally, during the 5 months when INIFOM had resources available, it could not implement because of institutional problems. According to this calculation during 88% of operating time the program has not been able to function properly. During the first 8 months or 24% of the program execution time, no funds were available to hire national staff; the operation was only led by international staff. Only during the five months from September 2008 to end of the year, the investment flows were as expected.

Below, an assessment of the effectiveness of each of the three results of the logical framework is presented.

5.3.2 Result 1: Implementation of ICT

This first result was formulated as:

> *Twenty municipalities use ICT to improve governance and achieve more efficient communication with the central government and to coordinate among the municipalities.*

To this result belong: the installation of computer equipment, servers, back-up power supplies, the Local Area Networks of the municipalities, Internet Access equipment, the Registration of cattle brands (SIG), Civil Registration System, the Municipal Management System (SGM), taxation, cadastre, Internet portals and support for the Associations of Municipalities (AMUs).

As a general observation, the mission reports that in most cases, the programs introduced by the project are used simultaneously with the systems (manual or computerized) that were already in use. This reflects probably that there are still some technical problems. The use of manual systems is a manifestation of the fact that full assimilation of the more modern equipment and programmes had not yet taken place, and the users did not have full confidence in new technologies.

Assessment chart

To evaluate the degree of success of each of these elements, the mission has assigned a rating of 0 to 10 (with 0 being no result and 10 being the maximum possible) to each of these components and in each of the municipalities visited, with the following result:

Qualification scheme of 12 municipalities

	Server and power supply backup	Internet access	SGM Municipal manageme	SIF (brands)	Civil Registration	Cadastre	Portal	Training
Teustepe	8	8	0	4	0	0	2	0
Boaco	7	8	9	5	0	7	9	8
San Lorenzo	8	8	0	3	0	0	2	2
Comalapa	8	2	3	6	0	0	8	10
Juigalpa	8	7	0	8	0	0	0	9
La Libertad	5	7	0	6	3	0	6	9
Sto, Tomas	10	3	0	8	0	0	8	9
El Rama	8	9	4	8	0	0	7	9
Villa Sandino	9	6	6	9	0	0	7	8
Acoyapa	8	8	4	0	8	0	5	6
Muelle de los Bueyes	9	8	6	7	6	0	6	6
Nueva Guinea	9	5	4	6	4	0	8	9
Average rating	8,1	6,6	3	5,8	1,8	0,6	5,7	7,1

These ratings are an average of self-assessment by respondents and the views and observations of the consultants.

Servers and Backup power supplies.

Opinions about the servers and their performance have generally been very positive. The 8.1 rating is high, and in a large majority of the cases this equipment has been used appropriately. It is of concern that in two cases the Inverter (back up power supply) had been burned, and only in one case has the municipality taken care for replacement with its own means.

Local Area Networks

16 out of 20 municipalities managed to install an internal network, LANs (Local Area Network), allowing the interconnection of the equipment and a data backup function. The implementation and configuration of Municipal Computer Centers is also reported. In this sense we can conclude that the project objective has been achieved, and intercommunication within the municipality was improved. The same goes for data back-up by means of the server. Good practice have been encouraged to generate frequent back ups.

Cattle Brand Registration

With regard to the system for the registration of cattle, this was installed in 20 municipalities. The actual use of this system is diverse, but in general, the Mission concludes that it is one of the most solid results of the project. However, still some technical problems persist and in a number of municipal governments both the automated system as well as the old manual system was used in order to insure against risks and technical failures. On the customer side time is saved by the system and the public service has improved. There is a strong incentive to improve this service even more, as it represents income for the municipality. Currently there is involvement of the National Police and the TELCOR for introducing measures against cattle theft by means of a nationwide automated registration system. It is noteworthy that the project has provided support in this regard to municipalities outside the intervention area. There was also collaboration with MAGFOR in the context of the traceability of meat.

Civil Registration

The project aimed to support the Civil Records System of the 20 municipalities in the automation of information. With regard to identity cards, this was to be done in collaboration with the Supreme Electoral Council (SEC/CSE). Although SEC is formally independent from the Executive, it is also known that it is subject to political pressures. However, as stated in paragraph 5.3.4, the negative attitude of INIFOM might have spread to other entities such as the SEC. It is difficult to find evidence to whether it was the influence of INIFOM through the Executive or the fact that SEC was not properly involved in the formulation of the project. Either way, the situation did not create the conditions necessary for a productive collaboration with the SEC and a successful outcome. After several attempts, this activity was discontinued. An additional reason was the announcement of a major project by the European Commission in support of the Civil Registry System of Local Governments.

Municipal Management System

The Municipal Management System (SGM) can be seen as the spearhead of the project. This system was intended to allow a dramatic increase in the quality of an integrated management system of the municipality. For the implementation of the SGM, the project chose to use an "Open Source" software program, thus avoiding high licensing costs for the municipalities OpenBravo[6], a Web-based ERP solution for small and medium enterprises, was selected. The system could be introduced for implementation with a maximum of 9 modules or less, adapted to the needs of the Municipality[7]. It was considered as a Pilot Project, in which the project staff attempted to modify and improve the software according to the needs of municipalities. A "Community Version" of this software package was chosen, to work with. This is an

[6] OpenBravo is a program owned by a company with the same name, based in Spain.
[7] These modules are: financial administration, stock, budget, cashier, taxing, human resources, acquisitions, project management and information management.

experimental version of the software, offered on the Web to users for experimenting and working on improving the software towards the release of a stable version. This "community version" is definitely not intended to be used in a production environment, even less in a municipal administration environment. The free version is limited in functionality, still can have many bugs, and for example does not produce the required reports in regular formats. For such extra functionality one has to purchase a commercial version of the ERP package. In the "commercial version", also Open Source software, the client pays for the Technical Assistance, as offered by the rightful owners and development coordinators of this Open Source package. Although this pilot software program was installed in the municipalities, none was working to the satisfaction of the users. Only in three of the municipalities, one or more modules were used satisfactorily. At the time of the evaluation a company, OberTic[8], was working on a professionalized version of the system. These improved systems are placed on the servers at the municipalities. In the larger municipalities already other systems were in use, especially SIAFM as promoted by INIFOM. It was also reported that some pressure came from the side of INIFOM to use the SIAFM system[9]. So now the situation arises that at least two parallel systems exist for the SGM, and these are in a state of "competition" with each other. The SIAFM, outdated and limited in functionality, also presents problems. INIFOM no longer has the technical capacity to provide effective technical support. The OpenBravo package is said to be superior in functionality, (the Mission is equally convinced of this claim) but until the program is operating effectively, will this remain theory only.

Land Registration

At its inception, the project aimed to strengthen the Land Registration System (SAT). This had a big interest by municipalities, as the land tax (IBI) is related to the land registration and a better system could also improve tax collection. It would also support the automation and connectivity with the Nicaraguan Institute of Territorial Studies (INETER). However, because of the problems with INIFOM, which spread to other institutions of the Central Government, these activities were suspended and the expected results were not achieved. A specific product of the project however, is a proposal to dramatically reduce tax indicators necessary for the IBI. The project selected approximately one fifth of existing indicators and thus reduced the local system and made it much easier and manageable for local governments.

Portals, Web pages

The project supported within the three regions the construction of 38 websites in 27 municipalities and 3 associations through an agreement with the AIN. Two municipalities already operated their own website. For each municipality two different websites were built, one for the municipality (the domain name with an extension *"gob.ni"*) and one for the town community (with extension *".info.ni"*). The content of the *".gob.ni"* websites deal with information from the municipality while the other, the *".info.ni"* extension, deal with local institutions, private companies, universities or tourism. According to the evaluators, the *".info.ni"* websites should be under the control of local actors. However the procedures and control of the website is out of the hands of the public actors. So in practice, many of these websites are inoperative. Although the evaluators understand this concept of two sites in each municipality, in retrospect it would have been better to start only with one portal, thus avoiding problems of sustainability, especially in small municipalities where few trained staff is available. The Mission concludes that these sites were successfully made, but as explained in other chapters there is great diversity in the use and degree of ownership. In municipalities with more capacity and interest, there is good use and dynamism, while in smaller ones with fewer technical skilled staff and little interest from the mayor, the portals are static, and content is not renewed. This reduces consequently the interest of the population.

It can be concluded that decentralization was not achieved in the management of these sites. That is, while some large municipalities handle all tasks well, smaller municipalities highly depend on the help of the Internet Association of Nicaragua (AIN). It is worth mentioning that

[8] OberTic is a company that specialises in the management of programs such as OpenBravo. In the framework of a contract with the Embassy of Finland, this company is re-programming the municipal management system. It is expected to do trials in December 2011 and to end the consultancy in March 2012.
[9] SIAFM is a program based on the FOXPRO designed for budget management, and allows the transfer of data with the Treasury.

the project has supported the portals of municipalities outside the sphere of influence in several municipalities like Masaya, Rivas, Chinandega and Madriz. Although the project has left the set up and management of the portals to local committees, in practice mostly only one person is responsible. This can have serious consequences and risks in terms of sustainability.

Training

Most of the previous sections of this outcome 1 included a training component. Respondents from 12 municipalities spoke positively about the training received. The mission concurs and understands the scale of the challenge and the great efforts made by the project in the training of the different actors involved. Although what can reasonably be expected of a project like this was done, one ought to also indicate that staff turnover is detrimental to this achievement and there really should be ongoing, permanent institutional training of operators and users. This was not achieved.

5.3.3 Result 2: Civil Participation and Transparency

This first result was formulated as:

> *Through the use of ICT, 20 municipalities have improved their channels for citizen participation, transparency mechanisms in local governance and coordination structures for local economic development.*

Communication Strategies

Under this component, the project supported, through the hiring of a consultant, to the development of communication strategies. The goal of these strategies was to promote active communication of local governments with the population. The products of this activity remained on paper and although there was no time to investigate thoroughly, the Mission has the impression that, in order to add more relevance to this goal, a long term, much stronger effort should take place to change the political culture of the municipalities.

The CIDELs – Civil Society

The project originally planned to support three Information Centres for Local Development. These CIDELs, however, were not established, because they were considered unfair competition to existing Internet cafés. The budget for this activity was converted into a fund to finance projects and initiatives in local communication and civil participation. The Mission has not had sufficient time nor inputs to analyse each one of these sub-projects.

However, the Mission found evidence in Boaco where the project provided important support to civil society - in this case, the Departmental Development Council of Boaco (CODEBO), as well as a Social Communicators Network. The CODEBO, as an expression of civil society without political colour, is a good example of how these structures have been replaced by civilian platforms aligned with the Sandinista government. CODEBO initiated and conducted the so-called Social Audits, and during the Bolaños Government received support and an office in the City Hall. During the current government its operations have reduced slowly, it has lost its office, and the CODEBO was replaced by a "Cabinet of Citizen Power", aligned with the Sandinista Party. The CODEBO of today has lost all support and is completely marginalized.

Portals and Kiosks, Websites and Internet Cafés

Although they belong to Outcome 1 in the logical framework, portals and Internet kiosks are essential for communication between local government and population.
The mission found great diversity in the use of these portals. In some municipalities such as San Lorenzo or Teustepe the website is not often maintained (or not at all) and respondents doubted whether the authorities would pay the monthly hosting fees. On the other hand, in towns like Nueva Guinea, Juigalpa or Boaco the use of the portals is much more dynamic. Here the authorities seem to have discovered the potential of the portals for communication with the public. Municipal staff is in charge of placing news, photos and videos online, making the website alive, dynamic and informative to the public.

Regardless of the quality of the portal, communication between local authorities and population through the portals depends highly on the needs, habits and skills of the population in the use of these media. Although the use of cellular telephony in rural areas has increased dramatically, Internet use is still limited to a relatively small part of the population. Mainly young people and students in the urban areas make use of the Internet cafés. Therefore, the role a portal can play for communication between local government and population is still very limited.

The Internet kiosks, installed in several municipalities, are mostly functioning, but also present problems, as in the case of Villa Sandino, where computers are being used for the administration of the municipality itself. Many of these kiosks were installed at the time where the public had no access to Internet. This was the important period when the Internet was introduced to a wider public as a pilot activity. Today, one can find several private Internet cafés in all these municipalities. This development reduces the need for the public kiosks, out of commercial and competition reasons, but it can be concluded that the introduction kiosks have been successful creating demand and awareness in the pioneering phase.

Expansion of the coverage of the telephone network

The project has supported the expansion of rural coverage of cellular network through the identification of sites for GSM towers. Within a framework of an agreement with ENITEL, 42 sites were identified with populations over 1000 people. ENITEL, as follow up, installed 15 cellular phone communication towers covering these sites.

The project also tried to introduce a rural telephony technology based on an appropriate business model for smaller towns. The protocol was agreed upon between TELCOR, ENITEL and Nokia, using the latest technology developed by Nokia, but it turned out it was not viable for Nicaragua, for financial reasons. Originally another low-cost technology was projected, where the maintenance would be provided by the community. However this activity was discontinued. But despite of the discontinuation of these activities, the use of mobile phones in rural communities is rapidly increasing.

5.3.4 Result 3: Strengthening of National Entities

This first result was formulated as:

> *Strengthen national and departmental actors that govern municipal systems supported by the program and thus promote sustainability.*

INIFOM

The problems with INIFOM as described in other chapters of this report, did not allow the originally planned strengthening of this institution. It was originally intended to strengthen the capacity of INIFOM to support municipalities in Nicaragua through ICT. The IT department of INIFOM was decimated in 2007, and the open politicization impeded the strengthening of the institute substantially. In view of this situation, this activity was eliminated.

The project sought to encourage direct and efficient communication solutions in the areas such as the Land Registry, Civil Registry and Registry of Cattle Brands. However, because INIFOM persisted in their role as intermediary between local and central government entities, it was not possible to support this more efficient form of communication. This attitude has created an environment not conducive to achieving inter-agency cooperation as required for a successful ICT program.

The disagreements with the INIFOM , according to interviewed stakeholders, ex personell of the project and even according to persons that were responsable for State Institutions at the time, have contaminated other state entities such as MHCP, INETER, CSE and CSJ. Because of this, the vast majority of the activities of Outcome 3 were removed, discontinued or encountered serious obstacles. Although the Mission has no evidence to support it, it has registered many opinions among respondents, where the reading is that this is due to the influence of INIFOM in the highest Government circles, through which other institutions were

pressured not to cooperate with the project.

AMUNIC

In the same way it was intended to support AMUNIC, the National Association of Municipalities of Nicaragua, but within AMUNIC the same process of politicization occurred as has been described for INIFOM. The result was that the support was limited to the donation of equipment to AMUNIC. No other planned activities were developed as many of them were passed to AIN, such as the activities in support of the municipalities in the construction and maintenance of portals.

MHCP

The MHCP not only acted as temporary counterpart of the project, but also received assistance in the development of a monitoring module, the TRANSMUNI, with the intention to track budget regulations as established in the Municipal Budget Act, and another for improving the registration of CUC (Unique Accountability Form).

DGTEC, DGI, INETER

With the DGTEC (General Directorate for Technology) a support was planned to establish the framework and platform for e-government interoperability. With the DGI (General Directorate for Taxation) support was planned to build a system for exchanging data of the RUC-IVA (Value Added Tax) system and with the Municipal Fiscal Cadastre system. With the INETER support was planned for a data exchange system with the municipal Physical Cadastre. None of these activities could be performed because these entities did not seem willing or capable to collaborate with the project. This is especially disturbing to the opinion of the consultants, because this way the Government is willingly disapproving of support that would improve income for the State.

MINSA, National Police, CSJ

With the Ministry of Health (MINSA), the National Police and the Supreme Court of Justice (SCJ) it was intended to improve the connectivity of the headquarters and its branches in the country. With the latter two institutions, activities were not performed, for the reasons already mentioned.

The exception is the successful support given to the Ministry of Health, MINSA. MINSA has established a system that allows and facilitates the daily transfer of data from health posts in the most remote places to a central registration point in Managua. This system is based on a daily data transfer. As the system can immediately detect disease outbreaks and epidemics, it allows MINSA to act in appropriate time. The system is two-way (the data is passed back to the representatives of MINSA in the country) and the ICT technology has allowed the removal of 56 fixed phone lines, a significant cost saving. The fact that the Ministry of Health told the Mission that they want to apply this system throughout the country, is a good indicator of success.

5.4 Impact

The impact of an intervention, in accordance with the Logical Framework methodology, is measured in relation to the Overall Objective. To which extent have the results contributed to the overall objective? For the Municipal ICT Project the overall objective was:

> ***Improve and strengthen democratic processes and governance through the use of Information and Communication Technologies.***

To make a statement about the impact, therefore, one should analyse the degree of intensification of democratic processes and governance. Furthermore, for a balanced and well founded view, one must separate the factors external to the project from those that were specific to the intervention itself.

As described earlier in this report, external factors have been important and influential on the results. As for the advancement of communication technologies and their coverage in the area,

these factors have been positive and massive. As for the political environment, the factors have been just as important, but in the negative sense.

Overall, the mission considers that the project has produced results despite the difficulties encountered along the way, but the impact of these results in terms of deepening of democratic mechanisms, governance and transparency has been limited.

The limited impact on the one hand has to do with the country's political environment and the area of intervention. Despite the talk of "direct democracy", proceedings of the Central Government of Nicaragua have not created the conditions necessary to expand and strengthen equal citizen participation platforms (without political orientation), popular consultation nor the decentralization of central power to sub-national levels.

In some ways the trend has been reversed toward more centralization through partisan parallel structures (CPCs) that are detrimental to the autonomy and authority of democratically elected municipal governments.

On the other hand, the mission believes that the focus of the project during its implementation has been more technical than strategic. For the short effective time that it has had, the project has concentrated on the first step being the introduction of ICT, but less attention was given to the second step which was to move from technology to governance, transparency and citizen participation mechanisms. This in turn has to do with the execution rush that caused delays, but also by the fact that the Management Unit staff were almost exclusively computer technicians.

This argument of the mission (that the first step of the introduction of ICT has been achieved, but that this does not automatically result in the deepening of democratic processes) can be illustrated taking the example of the portals. The technical establishment of these sites was achieved, but the local authorities, with the exception of Juigalpa, Boaco and Nueva Guinea, have not yet discovered the potential of this technology as a tool to communicate with the public and to create a better image, transparency and therefore, confidence. On the other hand, very little has been achieved in terms of reaching out to large groups of the population by the actual use of the portal. The vast majority of the rural population is not yet used to these means and the project has not been able to influence decisively in changing the local habits. For rural and marginalized population, broadcast radio is still vastly the most important way of communication. Bringing change is in the communication between authorities and population means changing culture and this has its own pace of development.

Summarizing, there are certainly impacts of the project in the 20 municipalities where information is now more available than before and where municipalities work better from the standpoint of internal management and efficiency. Services to the public have also improved by introducing more efficient Municipal ICT systems. At various locations has the image of the municipal governments improved together with their self-image ("We are modern municipal governments"). However, these results do not automatically lead to more democracy. The national political environment is not conducive to more democracy so that these results are translated into a real impact in terms of the deepening of democracy. Rather, it is adverse and it will be difficult to consolidate local results. Similarly, it means major impediments to the replicability of the results in other parts of the country.

5.5 Sustainability

5.5.1 Institutional Sustainability

In June 2010, the project engages a consultant to develop a sustainability plan. The mission strongly believes that the sustainability of an intervention should be ensured in the design and in the performance of each activity. It is definitely worrying when the concern for sustainability is born at the end of an intervention. In these cases, sustainability tends to be low.

At the level of national institutions of the Government of Nicaragua, we have seen that the results have been minimal due to the problems the project that was not firmly embedded in

the institutional setting of the country. As a result, there will hardly be any institutional sustainability. The actions as originally proposed to INIFOM, INETER, CSE and CSJ were suspended and sustainability of results obviously do not exist in these cases.

It is the opinion of most respondents that the INIFOM has not been involved with the project. The few project successes were achieved despite INIFOM, not because of INIFOM involvement. The mission believes that the political problems surpassed the technical arena and, as respondents sometimes comment, to a personal level. The differences of opinion on the project management approach and entrenched positions have surpassed the desire to achieve the best results. The Mission is concerned that this, at the end, will cast a shadow over the results and sustainability. It is not expected that INIFOM will continue or consolidate any achievements of the project.

In various project documents mention was made of expanding the newly introduced technology to other municipalities outside the zone of influence of the Municipal ICT. In view of the relationship with INIFOM and overall political situation, and because of the technical problems with introduced programs, the feasibility of this replication is considered low for now. Even if this technology could be replicated technically, it would still be problematic because of the political and institutional environment that has proven to be of more weight than the technical considerations.

At the municipal level, sustainability is threatened by staff turnover, especially in the case of computer technicians. The fact that the project financed the Municipal ICT staff guaranteed that professional staff were available during the project, but was a threat to sustainability. Wages were higher than the salaries of the mayors, this is a very delicate issue in these municipalities. At the ending of the project these staff costs were not supported with much enthusiasm. Indeed, after the change of municipal governments, 43% of the Computer Technicians contracted by the counterpart were no longer in office. In the visited municipalities more than 70% of computer technicians had less than one and a half year in office and therefore were not trained by the project.

This turnover reduces the effect of the project's efforts in terms of training. Knowledge is not passed between the leaving and replacing technicians. Sometimes software system access passwords were not passed on and these systems became useless, as was the case of the portal in Acoyapa. Especially for the portals, the access passwords play a role. On the other hand, the Mission noted that in the larger municipalities there is a somewhat more respect for the role technicians play, and fortunately not all were replaced after the change of a Mayor. It turns out that the biggest factor in this whole problem is the vision of the Mayor and the importance the Mayor attaches to the Municipal Computer Department. Another interesting phenomenon that gives hope is the informal networks that spontaneously were formed among different technicians and through which these they mutually supported each other.

Finally, it must be reiterated that haste is the enemy of sustainability and, unfortunately, problems experienced by the project caused a lot of haste in the implementation of the project. The challenge of a project like this is not the installation of hard- and software, but to accompany and offer sufficient training to really ensure that the project operates properly and attention is given to adequate maintenance and further development of the system.

The implementation of software programs into a new environment obeys a certain implementation cycle: platform definition, adjusting, data definition, configuration, data entry, testing, reporting, scheduling, coding, more tests, new settings, pilot version, user-level training, technical, management and so on. This is a continuous process. The project has sought to do so simultaneously in several application areas of the municipality, but lacking completely the time span to do so properly. Processes that bring changes in the environments like these municipalities have their own speed and encounter resistance to change, which is normal. All this should be included in the calculation and design of a project. In summary, processes are started but not completed and consolidated. For this reason, in some of the smaller municipalities that had a rather timid advance in technological development, the future is still uncertain as to the sustainability of the results.

5.5.2 Technical and Economic Sustainability

At the municipal level, technical and financial sustainability depends not only on costs and budgets, but rather on the importance being given to the innovations as introduced in these municipalities. Replacing a server requires an investment of about 13,000 Euro. The question probably is not whether municipalities have the money for this investment; rather, the question will be whether they consider it more important than investment in a highway, staff or a thousand other needs that arise daily in the municipality.

In other words, the central question is whether municipal governments are convinced of the benefits of innovations for its management and are willing to invest in the modernization and efficiency. According to the project estimates, the municipalities have to start budgeting the annual renewal of a 20% to 25% of their installed equipment, in order to avoid the situation that within two or three years they suddenly have to renew all computers at once. However, this has never materialized until now; rather the common practice of these municipalities in the last two decades has been to lean on external cooperation projects, which tend to donate equipment. Furthermore, local policies need to be implemented to ensure labour stability of computer technicians. In the smaller towns, the practice of laying-off almost the entire staff after an election continues to dominate. This is possibly the greatest threat to sustainability.

The technical sustainability of the Municipal Management System is still questionable. Additional development support, financed by the Embassy of Finland, is a necessity, but not a guarantee for sustainability. The company OberTIc is interested in pursuing technical software support, but this is only attractive if, in the end, local authorities are willing to pay for this service. Probably more municipalities will have to enrol in this approach to be commercially interesting for this company. The activities of CHF, being quite consistent with the objectives of the project, hopefully will improve the prospects for sustainability. Although sustainability should never be looked for in the new external cooperation projects, the project FITEL-World Bank should be mentioned. This project is in the process of replicating the SIF system 6 municipalities of Estelí, and MAGFOR is interested in a system to facilitate the traceability in all municipalities of Nicaragua.

Currently, the use of portals depends partly on the Internet Association of Nicaragua. AIN has been responsible for developing the municipal- and town portals and so far portals have been set up in 27 municipalities. By deploying portals it was clarified to the municipalities that these would have a monthly cost of about 50 to 60 dollars, which covers the Internet hosting and support. To cover the costs of AIN, they will have to enlist some 65 municipalities. This number has to date not been achieved, possibly jeopardizing continued support to the municipalities[10]. The mission believes that the AIN should have better and proactive communication with the local technicians in charge. In some municipalities easily solvable problems with technology were observed, with access codes and good management. Especially in the smaller towns, where technicians are highly dependent on the AIN, this is an immediate challenge.

In general, the Mission believes that the technology involved in the project is the right one in relation to the "hardware". This technology could be considered as very advanced at the time of introduction, but because of the rapid technical development in the market they soon will cease to be. It is for this reason that this report stresses for the need of permanent training and institutionalization. As for the "software", the Mission believes that some doubtful decisions were made. As explained in other chapters of this report, using an experimental version of OpenBravo was not the right decision.

It is worth mentioning, finally, that in the case of the connectivity project with MINSA the savings by elimination of the 56 phone lines can finance the entire monthly cost of the whole connectivity.

[10] Rather, in some municipalities such as San Lorenzo or Teustepe, there is not much willingness to pay the monthly fee, so that the figure of 27 active municipalities with websites could go down.

5.5.4 Cross-cutting issues with emphasis on gender

Indigenous People

The indigenous population in the 20 municipalities is almost non-existent. There are remnants of the indigenous population towards the Atlantic coast south of New Guinea but they do not constitute a numerically significant group in the 20 municipalities (far less than 1%).

Gender

The direct beneficiaries of the project are not civilians but the Local Governments as institutions. Some of the available data were produced with gender disaggregation. It is observed among computer technicians that men dominate slightly, but especially among young technicians a reasonable balance of women and men is seen. Among the users of computer systems and software programs in the municipalities, women dominate. In the training given by the project both men and women participated in equal percentages.

Users of Internet kiosks and services are mostly young teenagers, both boys and girls. There was no evidence that one gender is dominating over another. The mission found no impediments of any kind with regard to participation in activities, training or as end-users of the project.

Marginalised Population

The way the most marginalized groups benefit from this project is probably and only through a better service to the public, as was reported in several of these municipalities. Especially if one lives at a long distance from the municipality it is important that needs are resolved immediately, and these persons are no longer obliged to make several cost- and time-consuming trips due to the inefficiency and slowness of the municipality.

As end-users of modern communication media and the Internet, the benefit to marginalized groups is very limited, almost non-existent. The most marginalized rural families are living in the remote areas of the municipalities. They do not have possibilities for Internet access, often do not have mobile phone coverage or even do not have electricity. The rural radio broadcast is the traditional means of communication and their means of contact with the outside world.

6 Conclusions and Recommendations

6.1 Conclusions

1. The Municipal ICT project has been a **pioneering** project in introducing the concept of using ICT tools for integrated management in local government and despite the obstacles encountered, the project has carried out many of the proposed activities.

2. The project was **relevant** at the time of its design. However, during the course of the project it found itself in a rapidly changing environment, to which it did not adapt, which caused the loss of its relevance with respect to national policies. The political context since 2007 constituted an adverse environment for the overall objective concerning the deepening of democracy. Towards the end the development of the project outside the national institutions has affected the efficiency, effectiveness, impact and sustainability of the intervention. However, the relevance with regards to the needs of local governments is high and was maintained for the duration of the project.

3. **Relevance / Institutions.** The disagreements between INIFOM and the PMU / Embassy of Finland led to a divorce between the project and the institutions of Nicaragua, even after the transfer to the MHCP as counterpart. The decision to opt out of the institutional environment and opt for direct implementation, is understood from the historical commitment of Finland to the municipalities of this part of the country, but also calls into question the relevance of the Paris Declaration, signed by Finland.

4. **Efficiency**. Disagreements with INIFOM led to paralysis and during a long period there was no clear definition of the legal and institutional framework, in which the National Executive Council of the project (CEN/NEC) could not meet and annual plans or budgets could not be approved. It is estimated that for more than half of the duration of the project operating expenses, salaries and other operational costs were incurred without producing results. This has significantly lowered the efficiency of the project.

5. **Efficiency / Management model.** The hybrid mode of execution which made use of a Project Management Unit, a Logical framework and specific outcomes, in combination with channelling funds through the partner institution, has led to further in-operability in the execution. Most of this in-operability was caused by the fact that INIFOM was in disagreement with the model of administrative and financial management, agreed with the previous government. However, this mode of execution via the national budget is not appropriate for defined projects in specific areas and with targets that are not those of the Government.

6. **Efficiency / Management and Fund Channeling Modalities.** The modality of channeling funds through the national Budget is in line with the Paris Declaration, but was not an adequate modality for the Municipal ICT project which had it own specific goals, principles, area of interventions, beneficiaries and managements scheme that were not necessarily shared by the Government. In some ways, it even went against some vested interests (INIFOM).

7. **Efficiency / Monitoring.** Monitoring mechanisms have not worked as expected due to the lack of conformity of INIFOM with the decision making through NEC. A mid-term review of the project was not done. The mission believes that this is a missed opportunity because an assessment in the midst of these problems could have been a possibility to find solutions to the paralysis.

8. **Effectiveness / Implementation of ICT**. The introduction of ICT technology in Local Government has been largely achieved. The project has made a significant effort and has transformed the operation of these municipalities. Some of these municipalities have entered the era of automation and modern communication for the first time. The confidence Finland enjoys in the region, built up during several preceding projects, and the expansion of the telephone network coverage have been positive factors in this process of change. It is observed that the smaller municipalities that could have benefited the most from the project are the same ones that have reluctant mayors, which sometimes reduces the benefit.

9. **Efficacy / Equipment and programs.** The installation of computer equipment, servers and their investors (protection), local networks and Internet access has been satisfactory and was achieved in a short time. New programs were introduced and programs that were already in use now work with more protection and security. Cadastre programs and civil registration are hardly implemented by a few municipal governments. This has everything to do with the lack of responsiveness and collaboration of national organizations like INETER and CSE. Registration of cattle brands is the exception, since it had a high success rate.

10. **Efficacy / Municipal Management System**. A comprehensive computer program (ERP) for administrative and financial management (Municipal Management System) was installed in most of the municipalities but this program presented serious problems later. The decision to build the program on a platform of Open Source was taken without knowing all the consequences. Although it undoubtedly has advantages regarding use and low initial cost, the version used (community version) was inappropriate and was not designed for use in local government institutions. The amendments made by the PMU were not always appropriate. The stable version, needed for these municipalities, requires high-level professional assistance and therefore, additional costs to develop a version tailored to the needs. At the time of the introduction of these programs, these implications were seriously underestimated.

11. **Effectiveness / Communication:** Mechanisms of automated data exchange have been improved within the municipalities through local networks (LAN), but in matters of data exchange among municipalities and between local and national levels, hardly any real progress was made, with the exception of the project with the Ministry of Health. The objective of simultaneously supporting the national institutions and local governments to foster communication between them, failed to materialize, due to opposition from INIFOM which was eventually extended to other national institutions. Project effects are mainly found within the municipalities and are manifested in more efficient management and better customer service, but this has not always led to higher levels of communication or trust between the mayor and others (other municipalities, Central Government and the general public).

12. **Efficacy / Portals:** The portals have been created correctly and within a short time. However, the use of the websites shows a great variation between municipalities. It is noted that some municipalities make appropriate use of the same dynamic, while others show very little interest, especially in small towns or when the mayor is not convinced of the benefits that a website can potentially offer. In these cases there is little willingness and ability to use the portal as a dynamic means of communication. The mission is concerned that these municipalities still rely heavily on AIN to place their information in the portal.

13. **Effectiveness / Training.** Technical training has been of a high level and was very well received. However, it requires constant and institutionalized training to continue the processes started. This was not achieved. Also the need to increase the awareness of

mayors is considered by the mission to have not been achieved. This proved to be a determinant of success and consolidation of these processes of innovation.

14. **Impact.** The intervention logic of the project suggests that through the introduction of ICT technology, a project can contribute to the deepening of democratic processes, transparency and civil participation. In reality, the project achieved the first step, the introduction of technology, but there is little evidence for the achievement of the second step, the deepening of democratic mechanisms. This has to do with the haste in execution, with adverse political environment, but also with the purely technical approach of the PMU. Introduced technology lends itself perfectly to achieve higher levels of democracy and participation. However, although ICT can be a tool for this process, it is by no means a guarantee of more democracy. It is the use of this technology and political decisions that determine if ICT tools lead to more democracy.

15. **Impact.** The project has contributed directly and indirectly to unintended or unexpected but positive results such as the Center for Training of Civil Servants in El Rama and the informal network of computer technicians in the 20 municipalities.

16. **Sustainability / Design**. The sustainability of the results or purposes has not been sufficiently embedded in the design of the project and during the decisions taken during the project. The Plan for Sustainability which was made by the project towards the end was "too little, too late". There are some perspectives of new programs taking over elements of the project, but the sustainability of a project should be sought in the appropiation by beneficiaries, not in other projects of the international cooperation.

17. **Sustainability / Local Governments.** What the program has offered is relevant to local needs but the short implementation time and the large volume of innovations has hindered the full assimilation of innovations by the municipalities. It is therefore considered to be an ongoing process that has not yet completed. The introduction of technology, despite the high quality of the training, has been carried out in a very short time and insufficient time has elapsed to allow for natural assimilation and appropriation. Great diversity is observed among the authorities: several are open to innovation while others show less open attitudes.

18. **Sustainability / Training.** The rotation of computer technicians has hampered the sustainability of results. It is a consequence of the Nicaraguan political practices but also responds to a shortage in the market. The mission concludes that the large municipalities are beginning to show some degree of professionalism that protects computer technicians from politically arbitrary decisions. In small towns, no such protection is observed and most of the human capacity created by the project has been lost in these cases. In such a short time, the project was not able to resolve the need for a permanent training for ICT staff.

6.2 Specific Recommendations

1. The mission recommends Finland should continue on the road of support to democratic processes through the introduction of ICT tools. It is considered a good concept. However, this approach requires a positive and willing political and institutional environment. The mission doubts if the right conditions for these processes exist in Nicaragua today. In other words, the mission recommends a replication of this kind of interventions, but on the condidtion that a fertile political environment is guaranteed.

2. The mission recommends investigating the feasibility to achieve direct agreements with the Autonomous Governments of RAAN and RAAS to create the conditions that make a successful ICT project in support of municipalities possible in this part of Nicaragua.

3. On the other hand, it is advisable to evaluate the possibilities to support the creation of a legal and institutional framework for determining the law, responsibilities, standards, formats and platforms for data exchange and communication between different levels of government in Nicaragua. Without these "rules of the game" the risk of creating "technological islands" and incompatibilities remains. That will hinder the organization of data exchange, necessary for a future e-Government.

4. Similar future projects should opt for the use of open source software but choose modules and programs that are more compatible with the needs of small and medium local governments. The concept of absolutely free programs must be considered somewhat unrealistic, because the construction of relevant programs, tailored to local needs, efficient, stable and obtaining the necessary training will always require investment of resources in persons of high professional calibre.

5. In regions similar to the area of intervention of this project, Finland should focus on the introduction of ICT and the causal relationship it may have potentially with democratic processes. This causal link is not automatic; the part of democratization should be emphasized more, not primarily the technical part. This implies that a project does not need only technical staff, but just as much needs staff with political sensitivity for the decentralization and participatory processes. It is also considered that it is not always necessary to invest in expanding the telephone network, as this is largely an autonomous process in these countries, which would also occur without external assistance from donors.

6. The Mission recommends that Finland promote radio via the Internet in these projects. The sites show that there is an interest of people outside municipalities and outside the country that could be met through the Internet radio, which, while inexpensive, it is a way through which a small community can "put itself on the map".

7. The Mission recommends using some of the remaining funds of the Municipal ICT project in repairing the introduced systems (especially the Municipal Management System) in the municipalities willing to use them.

8. If the remaining funds permit it, it is further recommended to support the replication of support to the Ministry of Health. This could be done in a short span of time, and this support would be well received and respond to well-defined needs by the MOH.

9. It is recommended that Finland supports the spreading of the concept of ICT for municipalities via the Internet. Domains like *ticmunicipal.com, ticmunicipal.org ticmunicipal.net* should be registered (these are still available). This could be implemented within the framework of a small project with the most active municipalities, AIN, a virtual marketing expert, and preferably with government support. Municipal ICT must be propagated as a concept. It should be based on Open Source, but not necessarily on a specific program such as Openbravo. This could attract a community of developers, users, and authorities around the world which would work together on improving programs. It could be connected to the municipal websites and the possibility of on-line assistance or links to training opportunities. Likewise, the link should be established with modern social communities (Facebook, Twitter, LinkedIn, Internet Radio). A Web page specialised in Municipal ICT shouldn't only contribute to the construction of specific programs, it could also connect the people involved and those who were trained by the project in the past as well as other stakeholders.

10. In connection with the above recommendation, ObèrTic should be asked to make a version that is actually Open Source and that is tailored to the needs of municipalities and release it as an open version to the Internet community. This allows the software to be improved

with input from contributors all over the world in order to get a stable and tailored software program. This software could be made accessible to interested local governments throughout Latin America.

11. This report also emphasizes repeatedly the continuing demand for ICT skills in the Municipalities. Future projects should seek to institutionalize training.

12. Also, a support for the Training Center of Public Servants in El Rama or (in view of the existing support of the EC) similar initiatives could be considered to address the continuing need for training. Possible topics could be for mayors and administrators: introduction to networking, communication, data and the potential of portals. For technical staff: specific software configuration, security and network protection and data databases. For operators, the operation of the new software programs and customer service. Finally, it is useful and necessary to educate the general public in the use of new media and the access to public information

13. Other new ideas that could be incorporated into the design of new projects may be: to provide public information via SMS. In view of the latest-generation mobile Internet and the fact that the mobile phone network expands rapidly in rural areas, the feasibility should be investigated of applications (apps) that allow access to public information (cattle brands, civil registration, cadastre, etc.) through these phones.

6.3 General Recommendations: Lessons Learned and Future Interventions

1. Beyond Nicaragua the strengthening of local capacities in ICT, decentralization of state powers and citizen participation is much needed; it is a matter of interest in most Latin American countries. The Mission recommends that Finland seek to replicate this experience in the countries that match not only their goals but also the practical approaches in this area.

2. The modality of channeling funds through the national Budget is in line with the Paris Declaration, but should only be used for sector approaches and budget support or basket funds when there is a real understanding and agreement about the purposes and goals of such programs between donor and recipient country. On the basis of this study, we might add the necessity of an understanding about the ways of carrying out these programs with transparency, decentralization and democratic principles. Mechanisms and special clauses should always be in place to withdraw funding if trust and understanding between the parties cease to exist.

3. This evaluation sheds doubt on the formulation process. Though it is not very clear how this process was conducted, enough arguments come out of this study to plead for more involvement of stakeholders in a participative formulation process. Enough time should be made available to reach understanding and institutional compromises; this should really be a process, respecting institutional decision-making and probably cannot be reached in a couple of weeks.

4. Within this line of argumentation, future projects will have to seek and obtain some safeguards for the retention by beneficiaries of skilled staff. Part of the formulation process should be the budgetary commitments on behalf of the beneficiaries and political guarantees to maintain trained people in their posts.

5. The Logical Framework is a useful tool to monitor and evaluate an intervention, but it should not become a straitjacket. Enough flexibility should be sought by the Embassy and MFA to adapt the logframe to changing circumstances.

6. When the circumstances change to such a degree that the project looses relevance, a project should be renegotiated and modified to ensure lasting relevance. In the extreme

case of the impossibility of finding common grounds, ending a project should be a serious option, rather than continue a project that gives no real perspectives of success.

7. The previous recommendations about involvement and cooperation with stakeholders, participative formulation processes, flexibility and attention for relevance during a project life cycle, all come together in determining the sustainability of an intervention.

8. The indicators of the Logical Framework should be formulated with more care. Instead of referring to external studies and surveys, a project must actually produce these indicators and have them available both for its own monitoring system as well as for external monitoring and evaluation. Baseline studies and values of these indicators must be constructed in the formulation phase (again: this needs sufficient time) and in order to avoid additional workloads, indicators must be simple to understand, monitor, measure and register.

9. A Mid Term Review is always recommendable, even if little results are being achieved at the time. This is even more so the case if a project goes through problems, as an external mission, if the right experts are contracted, can help to intermediate and resolve these problems.

10. In future projects like this, the mission recommends that a typology of municipalities be made in the beginning of the intervention to avoid the case that municipalities that are advanced in ICT skills are offered the same technical package as those with lower technological capacities and levels of development. A more specific and tailored approach is needed if the differences between municipalities are considerable.

Municipal ICT Programme - Nicaragua

1. Programme context (policy, country, regional, global, thematic context)

National Political Context

The Municipal ICT Programme was implemented between 2006 and 2010. The political context during this period was challenging in many ways, including changes in central and local governments, in national development plans and ideologies, and in institutions related to the Programme context.

Nicaragua was one of the first countries to elaborate a national poverty reduction strategy in 2001, known as the Poverty Reduction Strategic Programme (PRSP or ERCERP according to its Spanish acronym), which enabled the country to continue to receive financial aid from the international community and to reach the enhanced Heavily Indebted Poor Country (HIPC) Initiative Culmination Point.

The PRSP of 2001 pursued an equitable economic growth and poverty reduction based on four pillars: i) broad-based economic growth and institutional reform; ii) investment in human capital; iii) enhanced protection of vulnerable groups; iv) good governance and institutional development; and v) three cross-cutting themes: equity, ecological and environmental vulnerability, and decentralization.

In general the national context in mid 2000, when the Programme was identified and planned, was favorable to decentralization processes, being actively encouraged by the Central Government and new legal framework. Law on Municipal Transfers was approved in 2003 establishing the percentage of the national budget to be allocated to municipalities. Law for Citizen Participation was approved in 2003, establishing the citizen's right to submit legislative initiatives and obliging public authorities to consult all orders, resolutions and regulations issued by the State Powers. In 2004 the Property Register Law was approved, setting the legal framework to the municipal property registers. Also the Law for Civil Service and Municipal Administrative Career came into effect in 2005, creating a national system for professionalizing municipal officials that was expected to ensure staff selection based on technical capabilities, providing working stability to those officials and contributing to preserve local technical capacities.

The 2006 presidential and parliamentarian elections brought Sandinista Party (Frente Sandinista de Liberación Nacional, FSLN) back in power after 16 years of right-leaning liberal governments. The change of government in 2007 brought along changes in the institutions and national development priorities. The Government presented to donors a draft version of new National Human Development Plan (PNDH) in 2008 and updated it in 2009 in order to meet the requirements of IMF and World Bank and the changes in economic context due to financial crises. However, it has not been validated through coordination mechanisms between the Government and the donors, thus by donors it has not been recognised as a jointly approved poverty reduction plan.

In the PNDH the emphasis was set in employment creation and poverty and inequality reduction. As a cross-cutting theme a new mechanism for participation, *Direct Democracy,* was introduced, through all embarking *Citizen Power Cabinets* that have in practice substituted the earlier, legally mandated citizen participation mechanisms. PNDH includes the development of telecommunications sector and some specific goals aiming to bring benefits to poor people living in isolated conditions and to reduce inequalities and digital divide between the citizens. Decentralization and strengthening of the municipalities are mentioned in the PNDH as means for a

more effective and efficient production and delivery of services in order to reduce inequalities and poverty, but it is not included among the first priorities or cross-cutting themes. This has been reflected in relations between municipalities and national institutions. In 2008 municipal elections, it was documented by independent civil society organizations that in many municipalities, including in some of the Programme intervention zone, the results were fabricated.

Due to changes in political context the Programme was modified accordingly. The Nicaraguan Institute for Municipal Strengthening (INIFOM) was substituted as the implementing institution by the Ministry of Finance due to impasses in implementation. However, the impasses continued and the implementation modality was changed from institutional to direct implementation, by the Embassy of Finland, and out-sourced to an international consulting group, Ramboll – Finnconsult, that had been in charge of technical assistance since the beginning of the Programme.

Global development objectives and commitments

The United Nations Millennium Declaration states that the International Community will "*ensure that the benefits of new technologies, especially information and communication technologies....are available to all*".

The later ICT for Development Conferences (ICT4D) have highlighted the links between ICT and the attainment of the UN Millennium Development Goals (MDGs), for example in the narrowing of the digital divide, and in economic development enabled by ICTs.

The Latin American Preparatory Regional Meeting for the World Summit on Information Society (WSIS – Geneva) in Rio de Janeiro (June 8-10 2005) confirmed the following goals that are expressed in the Regional Action Plan for Latin America and the Caribbean, (eLAC 2007):

- Reduce by half the national average user per access center proving internet to the communities, or reduce its coverage to 20,000 people per centre, regardless of whether it is public or private.
- Foster the quality and ensure the sustainability of Internet access centers, with community participation within a framework of respect for cultural diversity, and considering the needs of people with disabilities in accordance with international standards.
- Offer training and information services, including, among others, those provided by radio and television based in local communities.
- Connect at least half of local urban governments and one third of local rural governments to the Internet, ensuring local governments' staff capacity in relation to ICTs.
- Encourage synergy in service delivery, including the provision of digital or analogue services, while supporting national ICT suppliers, applications and content, between local and national governments.
- Promote ICT training programmes for local public officials
- Stimulate local development of information and access to local information, considering local and indigenous languages and the needs of people with disabilities.

Finland's development policy

The main goal of Finland´s development policy is to eradicate poverty and to promote sustainable development in accordance with the UN Millennium Development Goals. In Finland´s own recent development history the concept of information society has played an important part, thus it has been emphasized also in Finland´s development cooperation policy. Good and democratic governance is emphasized as an objective itself and as a cross-cutting theme indispensable in order to create an enabling environment for sustainable development. The use of advanced information and communication technologies is also seen as tool for fostering good governance, for example through improving efficiency, efficacy and transparency in public administration.

Finland, in collaboration with Nicaraguan Government, has identified three sectors of cooperation In Nicaragua: rural development, health and good governance. Good governance sector includes also promotion of decentralization policies and processes. As a result of a harmonization process between donors, Finland has concentrated its development cooperation interventions in Departments of Boaco and Chontales and in a part of the Southern Atlantic Autonomous Region, RAAS (so called Zelaya Central). The need for the Municipal ICT Programme was identified in the context of PROGESTION – programme strengthening the decentralization process and municipal development – that operated in the same region in 2004 – 2009, and with same national and local partners. The partners and principal beneficiaries at the municipal level were the municipalities and the municipal associations of the departments of Boaco and Chontales, and four municipalities of Zelaya Central (part of the Southern Atlantic Autonomous Region, RAAS), totaling at 20 municipalities

2. Description of the programme to be evaluated

2.1. Programme objectives

The following were the Programme objectives. More detailed description can be found in the systemization document annexed.

The overall development objective of the Municipal ICT Programme was:

To improve and enhance local democratic processes and good governance through the use of Information and Communication Technologies (ICTs)

To contribute to the achievement of the overall objective, following project purposes were defined:

- 20 Municipal Offices are using ICT to enhance and make more efficient communication with central government and to coordinate between the municipalities.
- Through use of ICT 20 municipalities have improved participation channels with citizens, mechanisms for transparency in local governments and coordination structures for local economic development.
- Capacity building at INIFOM within project management increases the value of services to the 20 municipalities.

Due to changes in the context, the intervention strategies were modified accordingly. The general strategy to achieve the purposes and to contribute to the development objective consisted of the following components:

1. To create an ICT platform with connectivity in the town halls
    a. installation of local network with servers, security system and software
    b. assure the use of hardware and software
    c. technical support to the town halls
2. Foster the use of connected platform
    a. train staff in use of connectivity
    b. develop an integral municipal administration system
    c. develop systems for administration of cattle branding register and population register
    d. develop a municipal web portal
    e. promote access to public information
    f. technical support to applications developed

3. Support the use of ICTs in democratic processes and local economic development through:
    a. a fund to finance ICT projects in town halls.
    b. a fund to finance ICT projects of local civil society.
    c. identification of new technologies and business plans for rural telephone.
4. Institutional strengthening in municipal ICT issues and e-government in :
    a. INIFOM (Nicaraguan Institute for Municipal Strengthening)
    b. AMUNIC (Association of Nicaraguan Municipalities)

Connections to other sectors and themes:

Connectivity of the Health System

In 2010, in order to execute the remaining funds of the connectivity component, a contract was signed with Regulating Institute for Telecommunication and Postal Services (TELCOR) to implement a pilot project to contribute to the modernization of the telecommunication system of the Health System in the Programme intervention zone. The objective of this component is to create an internal network between the Ministry of Health (MINSA), the Departmental Integral Health Administration System, the departmental hospitals and municipal health centers and contribute to more efficient and better service, prompt exchange of information simultaneously reducing the communication costs. The pilot project between TELCOR and MINSA is still going on and it has been requested to be extended to cover other isolated regions of the country.

Cattle Branding Register

The computerized cattle branding register is one of the applications developed during the Programme and one example of ICT tools adaptable to the needs of other sectors. Cattle trade is among the most significant sources of income in the intervention zone, thus tools for more efficient and transparent administration and better control of the property registers were among the priorities identified by the municipalities.

1.2. Scope of the Programme

Time span: 2006 - 2010

Stakeholder groups:

Municipalities (20 in total) of Departments of Boaco, Chontales and RAAS
Municipal governments: majors, municipal technical staff (ICT specialists, financial specialists, property register specialists, HR specialists, and others)

- Civil Society: different organizations working at municipal level, local universities, local journalists
- Final beneficiaries (people as “clients” of the municipal government)

Associations of Municipalities: Department of Boaco (AMUB), of Zelaya Central (AMUZEC), Department of Chontales (ASOCHON), and National association (AMUNIC)

- Coordinator and technical staff of the Associations

Internet Association of Nicaragua (AIN)

- Coordinator and technical staff of AIN, who were responsible of implementing the municipal web portals

State Institutions:

- INIFOM, as the original implementing institution and the institution competent on decentralization and municipal fomenting
- MHCP, Ministry of Finances, as national partner on implementation after INIFOM, and especially the institution responsible of municipal resource transfers.
- TELCOR, Regulating Institute for Telecommunication and Postal Services, as an institute responsible of telecommunications regulating, as a partner in implementation (connectivity of municipalities and MINSA) and a partner institution of the World Bank Programme with which Municipal ICT Programme has been coordinating the activities.

Other important donors in the field of ICT in Municipalities in Nicaragua:

- World Bank
- USAID / CHF International
- GIZ

Geographical area to cover:

- Managua
- Boaco: 6 municipalities, 2+ hours from Managua by road
- Chontales: 10 municipalities, 2 ½ + hours from Managua by road
- RAAS: 4 municipalities of Zelaya Central, 4+ hours from Managua by road

3. Rationale, purpose and objectives of the evaluation

The Programme as such was finished in November 2010, but there are still some minor actions going on in order to contribute to sustainability of some of the results. This evaluation has the function of final evaluation as a normal procedure to evaluate the results, their sustainability, and possible impact of the programme.

The results of this evaluation are to be used in the first place by the Unit for Latin America and the Caribbean of the Ministry for Foreign Affairs of Finland and the Embassy of Finland in Managua. They will serve to assess the recent development cooperation and future possibilities in this rather new field. In this sense the evaluation recommendations function as a base for possible identification of new interventions using ICT tools to strengthen governance processes.

Given the innovative character (transfer of modern technologies to Nicaraguan local governments) of the programme, the evaluation will provide important lessons to Finnish development cooperation in general. ICT has been a deciding factor in Finland´s own development in recent decades, and so it is expected to present added value that Finland can offer to the developing countries. Therefore, experiences provided by the ICT adapted to developing countries are of valuable importance.

Being one of the first significant interventions developing ICT tools to strenghten governance and administration at municipal level in Nicaragua, the lessons produced by the programme are of high importance also to implementing partners and other national institutions, as well as to other international development cooperation agencies interested of the ICT applied to local governance.

The evaluation should provide evidence of the performance of the Programme implementation in general. Given the many changes in the national and municipal context during the implementation of the Programme, it is recognized that achieving the original objectives was challenging and required creativity and flexibility in Programme structures. Nevertheless it is important to compare the planned objectives and results to the achievements of the Programme, analyze the reasons and identify practices explaining the successes and failures, thus providing generalized lessons learned during the Programme implementation.

A special concern to be evaluated is the sustainability of the products and results. In ICT projects in general, sustainability is one of the key risks to be taken into account. Productive and sustainable adaptation of modern technologies to conditions like Nicaraguan municipal governments is a complex issue demanding creative technological solutions, profound knowledge on institutional settings, competencies and culture, and many times also cultural changes from the part of the users. Assuring that ICT applications work properly and will be used productively after the end of the intervention, is one of the main objectives of technology transfer, and to be paid special attention in this evaluation. Also the frequent changes in national and municipal context and institutions, including frequent personnel changes, entail additional challenges to be taken into account. Therefore, among the most important issues this evaluation should address is to analyze if adaptability of the ICT solutions into local needs and their sustainability were taken into account adequately and provide recommendations for possible follow-up actions or future interventions. In this particular case, it should be analyzed, if the products (in this case, especially the ICT applications) are working properly, if they are improving the efficiency, efficacy and transparency of municipal administration, thus bringing along a real development impact, and this way assessing the relevance of the programme. In order to assess the sustainability, special attention should be paid in the capacities, capabilities and commitment of local actors to take responsibility of management, use and further development of the products and functions developed during the Programme. Another issue to address is the involvement of private sector in sustainability of the products.

4. Participation and partnership as an approach to the final evaluation

In the evaluation process it is necessary to coordinate with all the stakeholders involved in all the stages of the implementation in order to have a comprehensive and inclusive impression of the Programme. The most important stakeholders to be involved are the immediate beneficiaries, i.e the users of the ICT connections and applications: municipal associations and municipalities itself. Also the implementing institutions such as INIFOM, Association of Nicaraguan Municipalities (AMUNIC), Ministry of Finances (MHCP), Internet Association of Nicaragua (AIN) and Regulating Institute of Telecommunications and Postal Services (TELCOR) as well as other donors working on the same field (World Bank, USAID, GIZ among the most relevant ones) should be included in the evaluation process.

The inclusion of the beneficiaries into the evaluation process requires site visits to the municipalities. This can be done one by one or in groups, coordinating with departmental municipal associations. The national partners and other donors can be interviewed in Managua.

Especially the Municipal Associations have had a strong ownership of the implementation of the Programme and of the departmental development in general. Therefore their inclusion is of high importance. Apart from that it would be advisable to interview many actors independently, given the political polarization of the ambient.

5. Issues to be addressed

5.1. Evaluation criteria and evaluation questions

The key issues to be adressed in this evaluation are the relevance of the Programme, its efficiency, effectiveness and impact and as the most important, the sustainability of its results. However, also other aspects, such as Programme management, cross-cutting objectives and good governance issues should be analysed.

Relevance

Relevance refers to the extent to which the objectives of the Programme are consistent with beneficiaries' requirements, country needs, global priorities and partners' and Finland's policies.

I. Are the objectives and achievements of the Programme still consistent with the needs and priorities of the stakeholders, especially the ICT end users: the municipal administrations and their clients, including easily marginalized groups (children, people with disabilities, indigenous peoples and ethnic minorities)? Has the use of ICT improved the efficiency and transparency of municipal administration processes?
II. Are the objectives and achievements of the Programme consistent with the policies of the partner country?
III. Are the objectives of the Programme consistent with Finland's development policy (incl. regional and country-specific priorities, sectoral and thematic priorities, cross-cutting objectives)?
IV. Has the situation changed since the approval of the Programme? Has the programme been able to adjust to the changed situation if such changes have taken place?

Efficiency

The efficiency of a Programme is defined by how well the various activities transformed the available resources into the intended results in terms of quantity, quality and timeliness. Comparison should be made against what was planned.

I. How well did the activities transform the available resources into the intended outputs/results, in terms of quantity, quality and time?
II. Can the costs of the Programme be justified by the results?
III. Were the contributions by the partner country and the donor provided as planned?
IV. Quality of technical assistance?

Development Effectiveness

Effectiveness describes if the results have furthered the achievement of the purpose of the Programme. The evaluation is made against the related indicators.

I. Is the quality and quantity of the produced results and outputs in accordance with the plans, do the beneficiaries and other intended stakeholders have the capability to apply the results independently?
II. To what extent did the Programme achieve its purpose?
III. Have the planned benefits been delivered and received, as perceived by all key stakeholders?
IV. Were the benefits of the Programme free from unfair discrimination? In this aspect, in Nicaraguan political polarization context analysis on political discrimination needs special attention.

Development Impact

Impact describes how the Programme has succeeded in the attainment of its overall objective, i.e. targeted impact for its beneficiaries. The evaluation is made against the related indicators.

I. Was progress made towards achieving the overall objective of the Programme?
II. Have the interventions led to better services, access to information and to municipal authorities and this way contributed to better participation opportunities for all citizens, especially of marginalized groups? Has the Programme, through these interventions, had impact in reducing inequalities in the municipalities?

III. Has the use of ICT´s had impact in disaster risk reduction, or in vulnerability to climate change through more efficient communication?

Sustainability

Sustainability is of special concern to be adressed in this evaluation. It is defined as the degree to which the benefits produced by the Programme continue after the external support has come to an end.

I. What are the possible factors that enhance or inhibit sustainability, including ownership/commitment, economic/financial, institutional, technical, implementation context and its changes, socio-cultural, capacity in terms of skills and required human and other resources, and environmental sustainability aspects?
II. Have the benefits produced by the Programme been maintained after the termination of external support and are they expected to be maintained further?
III. Who has taken over the responsibility of financing the activities, or have they become self-sustaining?
IV. Was there an exit strategy and gradual handing over plan in place, and did it ensure sustainability?
V. Is there need for some corrective actions in order to assure sustainability of the results?

Programme management and administration

I. Quality of the day-to-day management? Were possible problems in implementation adequately addressed?
II. What was the quality of work planning, monitoring and reporting incl. use of indicators, resource and personnel management, financial management, cooperation and communication between stakeholders?
III. Were all relevant stakeholders identified and given the opportunity to participate?
IV. Were all the relevant stakeholders, and public in general, adequately informed of the Programme?
V. Was adequate baseline, including capacity assessment data available, disaggregated by gender, age group and other relevant categories?
VI. Was the balance of power and responsibilities between the various stakeholders appropriate?
VII. Did the Programme help increase rival groups' confidence through more open communication and through encouragement of balanced, local ownership of the Programme?
VIII. Were important assumptions identified? Were risks appropriately managed, including flexible adaptation to unforeseen situations?

6. Methodology

The choice of methodology will be left to the tenderer to propose. It is expected, however, that multiple methodologies are used, both quantitative and qualitative. Validation of results must be done through multiple sources. No single statements should be taken as a general outcome.

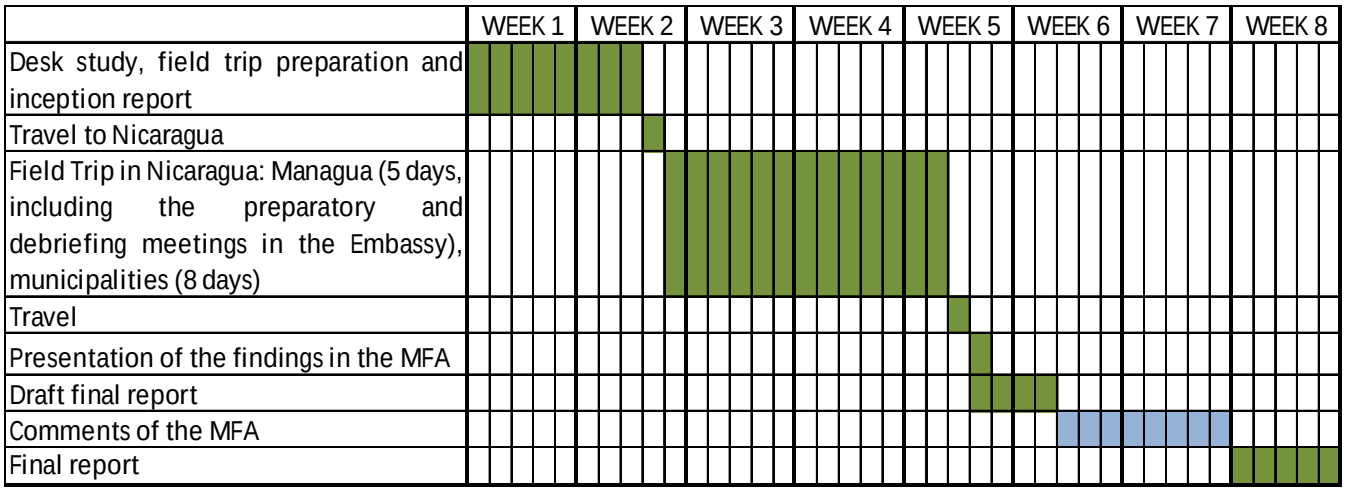
In the methodology chapter of proposal the following should be indicated

- reports, documents, materials to be analysed during the desk study phase;
- the data collection tools that will be used, including any planned surveys, questionnaires, field observations, reference to administrative records and management reports, key interviews, etc;

The methodology will be developed during the inception phase by producing an evaluation matrix including a detailed description of the methodology to be applied by the evaluators.

7. The evaluation process and time schedule

It is expected that the evaluation will be completed in 8 weeks, from the signing of the contract, according to the following schedule:



8. Reporting

The evaluation team must submit the following deliverables, all in English:

- Inception report
  The desk study results are included in the inception report as a concise analysis of the policies, guidelines, and other documents studied for the evaluation. The desk study report must also contain a plan for the field study, i.e. what kind of questions need to be clarified by interviews, who will be interviewed in the Ministry and in the Embassy, who will be interviewed in the partner institutions and in the field, outline of the questions to be asked in the interviews etc.

  The Inception report must include detailed work methodologies, a work plan and detailed division of labour within the evaluation team, list of most important meetings and interviews, detailed evaluation questions linked to the evaluation criteria in an evaluation matrix, reporting plans including proposals for tables of contents of the reports.

- Presentation on the field findings
  Presentation on the field findings must be given in the Embassy of Finland in Managua and in the MFA.

- Draft final report
  Draft final report amalgamates the desk study and the field findings. The evaluation report presents findings, conclusions, recommendations and lessons separately and with a clear logical distinction between them and integrating the evaluation results on cross-cutting objectives.

  The MFA and the relevant stakeholders will submit comments on the draft final report to the consultant. The comments will be submitted in 1 ½ weeks after receiving the draft report. The draft final report is commented only once. The commentary round is only to correct misunderstandings and possible mistakes, not to rewrite the report.

- Final report
  The final report must be submitted 1 week after receiving the comments. The final report must follow the report outlines agreed on during the inception phase.

- Presentation on the evaluation findings
  The evaluation team is expected to give a PowerPoint supported presentation on the evaluation findings.

The reports should be organized logically according to the dimensions detailed in the chapter on evaluation criterias and they should be written in clear and concise language. Each deliverable is subjected to specific approval. The evaluation team is able to move to the next phase only after receiving a written statement of acceptance by the MFA.

9. Expertise required

The Ministry for Foreign Affairs is looking for an experienced evaluation team. Preference is given to experience from developing and/or transition economy countries, especially from Latin-America and in particular from Nicaragua. References from the last 15 years are regarded as the most relevant. Fluency of Spanish is expected from all the team members.

The evaluation task suits well to 2-3 experts. It is possible to combine the tasks of the team leader and the ICT expert provided that the qualifications (a-b) are met in one person:

a) Team Leader, International

- Experience as a Team Leader in development projects/programmes and processes. Solid experience in Project Cycle Management (PCM) and Logical Framework Approach (LFA).
- Experience in planning, monitoring and evaluation of development interventions (preference given to experience from ICT applications and local development or local governance projects).
- Proven understanding of development questions, knowledge of Finland´s development cooperation policy is considered as an advantage.

b) Expert in ICT and development, International

- Solid experience in planning, implementation and/or evaluation of development programmes or projects related to ICT applications adapted to developing or transition countries.
- Experience of conectivity solutions adapted to developing countries is considered as an advantage.
- Experience of open source programming and application development is considered as an advantage.

c) Expert in local governance and/or municipal administration, National or International

- Proven understanding of institutional framework related to local governance and municipal administration in Nicaragua.
- Solid experience of development programmes or projects related to good governance, preferably in municipal context.
- Good knowledge of decentralization processes in Nicaragua or in Latin America.

10. Budget

The total available budget for this evaluation is 80 000 euro, excluding VAT, which cannot be exceeded.

11. Mandate

The evaluation team is entitled and expected to discuss matters relevant to this evaluation with pertinent persons and organizations. However, it is not authorized to make any commitments on the behalf of the Government of Finland.

Annex 2 Logical Framework

Intervention Logic	Objective verifiable indicators	Means of Verification	Assumption
Overall Objectives: To improve and enhance local democratic processes and good governance through the use of Information and Communication Technologies (ICTs).			Not applicable
Project Purpose: 1. Twenty Municipal Offices are using ICT to enhance and make more efficient communication with central government and to coordinate between the municipalities.	Number of transfers. Number of staff utilising communica-tion tools. Coordination improved. Efficiency improved. Increased legitimacy.	Quantitative and qualitative surveys.	*(Regarding standard interpretation of LFAs the assumptions listed below at Project Purpose level are not deemed necessary for the fulfilment of this Project's Purposes but will enable the fulfilment of the Overall Objective.* ***They are assumed provided through other programs, projects or interventions.)*** National government give priority to and enhance local democratic processes and good governance and support institutions vital for providing advice and services to local governments. Information systems enabling computerised exchange of information between municipalities and Governmental institutions (e.g. Finance Information, Accounting Systems etc.) are implemented.
2. Through use of ICT 20 Municipalities have improved participation channels with citizens, mechanisms for transparency in local governments and coordination structures for local economic development.	Purpose for use. Social, economic, financial, fiscal, environmental gender and political impacts.	Quantitative and qualitative surveys.	
3. Capacity building at INIFOM within project management increases the value of services provided to the 20 Municipalities.	Number of services provided. Degree of success. Increased legitimacy.	Quantitative and qualitative surveys.	

Intervention Logic	Objective verifiable indicators	Means of Verification	Assumption
Results: 1.1. Internet connectivity and local area networks for the 20 Municipal Offices are in place including possibilities for voice over IP telephony.	Number of facilities per municipality.	Reports. Surveys.	Adequate funding provided for procurement of equipment. 20 municipalities assure provisions for running costs.
1.2. Twenty municipal offices have been strengthened with adequate and updated computer equipment (workstations, scanners, fax, printer, etc.)	Number and quality of equipment.	Reports. Surveys.	Administrative staff at the municipalities and central government staff are willing to cooperate and willing to use the ICTs. Cooperation from Supreme Electoral Council and the legal "body" in charge of cattle registry.
1.3. Automated systems for Civil Registry and Cattle Registry are created in Twenty municipalities.	Number of systems in place and locations.	Reports. Surveys.	
1.4. An Internet Portal for inter-municipal communication and information to central government is created.	Portal active.		
1.5 Training of municipal staff and sensitivity to ICT policy making at municipal level ensures efficient use of software and hardware put in place.	Number of trained staff and certificates issued.	Reports. Questionnaires.	

Intervention Logic	Objective verifiable indicators	Means of Verification	Assumption
2.1. Three small regional based ICT service centres (CIDELs) embed well functioning FM radio stations and community portals providing public service information based on citizen feed-back.	Number of relevant broadcasting. Content in portals. Number of calls to Town Houses Number of call to CIDELS Number of internal calls. Revenues.	Media analysis Report Statistics Financial reporting.	Adequate funding provided for procurement of equipment. Organisations, citizens and SMEs willing to use facilities and give feedback for content. Local “entrepreneurs” capable to setup and manage CIDELs. Self sustainable CIDELs including temporary joint municipal funding of running costs.
2.2. Improved direct communication channels between rural populations, twenty municipal offices, departmental organisations and CIDELs are established based on GSM technologies (e.g. two-way radio communication equipment).			
3.1. Staff at INIFOM trained to improve strategy and planning and in giving ICT services to municipalities within needs assessment, preparing ToRs, procurement procedures and supervision and maintenance.	Self evaluation and number of certifications.	Reports. Quantitative and qualitative surveys.	Active cooperation between INIFOM (central and decentralised levels) and the 20 Municipalities.

Intervention Logic	Objective verifiable indicators	Means of Verification	Assumption
Activities: 1.1.1 Needs assessment/ inventory of ICT availability (connectivity, LANs and VoIP), study tours to e.g. Honduras. 1.1.2 Pilot site selected 1.1.3 Procurement process prepared and executed for pilot 1.1.4 Implementation and handover pilot incl. manuals. 1.1.5 Assessment report on pilot project 1.1.6 Replication to other sites	Inventory/20 municipalities Pilot site selected. Procurement documents for pilot. Equipment implemented at pilot site. Replication in 19 municipalities	Reports Field inspections.	Active cooperation from central government, municipalities, CDDs, CDMs. Access to information at all levels. Consensus on pilot site selection. Timely implementation plans by fibre optic connectivity provider.
1.2.1 Needs assessment of/ inventory of ICT equipment (workstations, scanners, fax, printer, etc.) in 20 municipalities 1.2.2 Pilot site selected (same site as under 1.1.2) 1.2.3 Procurement process prepared and executed for pilot 1.2.4 Implementation and handover for pilot incl. manuals 1.2.5 Assessment report on pilot project 1.2.6 Replication to other sites..	Inventory for 20 municipalities Pilot site selected. Procurement documents for pilot. Equipment implemented at pilot site. Replication in 19 municipalities	Reports Field inspections.	
1.3.1 Assessment of scope and technical approach of Civil Registry and Cattle Registry 1.3.2 Testing, implementation and maintenance 1.4.1 Assessment of scope and technical approach	Specifications Test results. Software implemented. Training material and manuals. Number of training sessions in 20	Specifications Reports.	Permanent coordination with Supreme Electoral Council and legal body in charge of Cattle Registry

Intervention Logic	Objective verifiable indicators	Means of Verification	Assumption
1.4.2 Application development process 1.4.3 Testing, implementation and maintenance 1.5.1 Training needs assessment 1.5.2 Development of training material 1.5.3.Training sessions conducted	municipalities Number of participants.		
2.1.1 Scope of services of 3 CIDELs and time schedule 2.1.2 Organisation/ statutes and establishment of 3 CIDELs 2.1.3 Development of business plan 2.1.4 Inventory of ICT equipment 2.1.5 Procurement process prepared and executed 2.1.6 Implementation 2.1.7 Development of 3 Internet portals 2.1.8 Development of manual for content production	Specifications 3 portals established. Business Plan Statutes. Inventory list. Number of radio programs. Number of feed-back. 3 Portals active. Number of hits. Manuals.	Reports. Field Inspections. Web-Statistics. Listener surveys. Financial reporting.	Local “entrepreneurs” and organisations ready to setup, host and manage CIDELs. Exchange of information for content at all levels.
2.2.1 Feasibility study for installation of GSM technologies (e.g. 2 way radios) 2.2.2 Pilot site selected 2.2.3 Procurement process prepared and executed for pilot 2.2.4 Implementation of pilot project 2.2.5 Assessment report on pilot project	Feasibility Study Pilot site selected. Procurement documents for pilot. 2 GSM technologies (e.g. two-way radios) installed at pilot site. Replication at 19 municipalities with 223 GSM technologies (e.g.	Reports. Field Inspections. Surveys.	

Intervention Logic	Objective verifiable indicators	Means of Verification	Assumption
2.2.6 Replication to other sites	two-way radios) in total.		
3.1.1 Training needs assessment at INIFOM including training in ICT4D policies, ICT content creation, and ICT for poverty alleviation (MDGs) 3.1.2 Development of training material 3.3.3.Training sessions conducted at INIFOM	Specifications Training material and manuals. Number of training sessions. Number of participants.	Reports. Manuals.	

Annex 3. Short Presentation of the Consultants

Thomas Pijnenburg
Expert in Development Latin America
Born in Oss, The Netherlands on May 5th 1959

Dr. Thomas Pijnenburg has been active in Latin America for some 30 years. Initially as a volunteer and student of cultural anthropology and professionally since 1987 (25 years). From this date he has been living and working constantly in Latin American countries, dedicating his efforts to studies and projects of sustainable rural development of Latin America.

He has solid experience in practical studies in rural environments, rural extension and communication from a profound knowledge about peasant economy. This knowledge comes from living among poor peasant for long periods of time in several occasions. After doing practical and participative research for years, he worked as a social expert in development projects and from 1994 as project director, first for the Dutch government and later (from 1997) for the European Commission.

In all these projects, sustainability of the interventions was of utmost importance, as well as strengthening of local governments, civilian participation, coordination with local organizations and self-help schemes (generation of jobs, food security, microfinance, typologies of peasants, small enterprises). Particularly, he has specialized in project management, social and economic research, rural extension, monitoring and evaluation, gender, sustainable agricultural development and environment. From December 2000, he has been established in Spain and has been a freelance consultant for short term missions; identification, backstopping, formulation, evaluation and monitoring, specially for the European Commission, but also for multilateral organizations such as the UN, IDB and European governments.

Theodore Peter Vlaar
Expert ICT & Development
Born in Roermond, the Netherlands on March 12, 1950.

Studied Electrical Engineering and specialized in telecommunications applied in tropical regions of the world. His interest in travelling and life-long-learning made him a polyglot and enjoy working in multicultural environments. Via functions as Technical-Commercial Manager in Industry, (Process Control Technology and Medical Systems) and Software Houses (ICT applications for Trade and Industry), he got more involved in the exciting world of working in developing countries.

Long term contracts at universities and TVET institutions in Asia, Latin America and Africa brought experience and insight in the institutional processes involved in bridging the digital divide in developing countries.

Theodore Peter loves the human warmth of people in the southern hemisphere, where Internet communication, web-design, social networks and the use of Open Source software programmes bring people together. Participating in the evaluation of the Municipal ICT Concept in Nicaragua was a pleasure. The taste and smell of *gallo pinto* and *quesillos* did not change. Alas, there was little spare time for giving attention to his hobbies, such as amateur radio (ex YN1TV) and photography.

Annex 4 ACTIVITIES OF THE MISSION

Date		Meetings/ Persons met	E-MAIL
WEDNESDAY 30.11		Travel to Nicaragua	
THURSDAY 1.12	Managua	Briefing at the Embassy of Finland	
		AIN	
		Lic. Hjalmar Ayestas	hjalmar.ayestas@telefonica.com
		AECID	
FRIDAY 2 DEC	Teustepe	Travel to Teustepe (75 kms)	
		Lic. Elizabeth Bermudez Mayor of Teustepe	elizabethbermudezobando@yahoo.es
		Lic. Ninoska Oporta Castillo in charge of ICT for the municipality	ninosh_7@yahoo.es
		Meal with Sr. Pio Blanco Director of AMUZEC	pio.blanco@amuzec.org.ni
	San Lorenzo	Travel to San Lorenzo (20 kms)	
		Lic. Marcos Antonio Sandoval Mayor of San Lorenzo	msuazolopez@yahoo.es
		Interview with person in charge of ICT of the municipality	
		Travel to Boaco (28 km.)	
	Boaco	Lic. Juan Antonio Obando Mayor of Boaco	alcalde@alcaldiaboaco.gob.ni
		Lic. Lester Sanchez in charge of ICT for the municipality	lestersanchez22@yahoo.es
		Lic. Eva Tablada, Executive President of AMUB	evatablada49@yahoo.es
		Working lunch with CODEBO. Lic. Mary Elizabeth Flores CODEBO	mary_elizabethf@hotmail.com
		Travel to San Jose de los Remates (44 kms)	
	San José de los Remates	Lic. Martha Lucia Sarria Melendez, Mayor of San Jose De Los Remates	marta.sarria@gmail.com
		Lic. Marlon Raudez in charge of ICT for the municipality	
SUNDAY 4 DEC		Travel to Juigalpa	
MONDAY 5 DEC.	Juigalpa	Lic. Maria Elena Guerra Gallardo, Mayor of Juigalpa.	aljuich@gmail.com
		Lic. Vladimir Chavarria in charge of ICT of the municipality	

		Dr. Yamil Vargas, Executive Director ASOCHOM	vargasyamil13@yahoo.com
		Lic. Federico Tablada, President Chontales	ftablada@gmail.com
		Travel to Acoyapa (1/2 hour approx)	
	Acoyapa	Lic. Armando Rafael Chavarria, Mayor of Acoyapa	alcaldiaacoyapa@yahoo.es
		Lic. Alexis Arguello, in charge of ICT of the municipality	
TUESDAY 6 DEC		Return to Juigalpa, Hotel los Arcangeles	
		Travel to Santo Tomas	
	Sto. Tomas	Lic. Nelly Serrano, Mayor of Santo Tomas	nellyalcaldesa@yahoo.es
		Lic. Juan Jose Castillo, in charge of ICT of the municipality	juancastillo_160@hotmail.com
		Travel to Villa Sandino (12 kms)	
WEDNESDAY 7 DEC	Villa Sandino	Lic. Justino Del Socorro Sevilla, Mayor of Villa Sandino	tynoalcaldia09@yahoo.es
		Lic. Denis Odel Oporta Correa, in charge of ICT of the municipality	dennisodelo@yahoo.es
		Lic. Leonela Contreras, in charge of ICT kiosk	informacionvillasandino@yahoo.es
		Travel to El Rama (100 km.)	
	El Rama	Lic. Ualda Lucila Obando, Mayor of El Rama	ualdaog@yahoo.es
		Lic. Carlos Centeno, in charge of ICT of the municipality	cjcentenoa@gmail.com
		Sr. Giovanny Gonzalez. Ex AECID (AMUZEC/ Civil Servants Training Centre)	franjiov2000@yahoo.com
	Muelle de los Bueyes	Travel to Muelle de los Bueyes (43 kms)	
		Lic. Gilberto Perez Matus, Mayor of Muelle de Los Bueyes	muelledlb@yahoo.com
		Sr. Edwin Javier Solano, in charge of ICT of the municipality	
		Travel a Nueva Guinea (42 kms)	

FRIDAY 9 DEC	Nueva Guinea	Visit to "Radio Manantial" rural radio	
		Interviews with beneficiaries	
		Workshop with beneficiaries	
		Lic. Denis Obando Marin, Mayor of Nueva Guinea	alcalde.ng @gmail.co
		Lic. Alfredo Arteta, in charge of ICT for the municipality	
SUNDAY 11 DEC	Nueva Guinea	Travel to Managua (298 kms)	
	Camoapa	Meeting with Lucia Sequiera, ex-Director of AMUB	luzsequeira@yahoo.com
MONDAY 12 DEC .	Managua	Jens Riis, ex-CTA, interview via skype	
		Gilberto Lindo (CHF, ex-INIFOM)	glindo@chf.org.ni
		Carlos Becerra, ex-ATP ICT Project	Carlosjose.bb@gmail.com
		Pablo Hurtado, ex-technician of project	Phurtado1112@gmail.com
		Patricia Delgado, ex-AMUNIC	pdelgadosaenz@hotmaill.com
		Tania Castro Uni – ICT	taniacastro@gmail.com
		Roberto Soza (CHF, ex-SNV)	rosa@chf.org.ni
TUESDAY 13	Managua	Edward Centeno Director INIFOM	
MWEDNESDAY 14	Managua	Omar Moncada, ex-MHCP	
		Minister of Health	
THURSDAY 15	Managua	Orlando Castillo, Director TELCOR	
		Organisation of data and preparation of presentation	
FRIDAY 16	Managua	Debriefing in the Embassy	
SATURDAY 17		Return trip consultants	
SUNDAY 18		Arrival in Europe by consultants	

Final Evaluation
Municipal ICT Project
Nicaragua

November 2011 – January 2012

Consultants:
Thomas Pijnenburg
Theodore Peter Vlaar

The evaluation mission visited 11 of the 20 municipalities in Boaco, Chontales and Zelaya Central. The main roads in this part of Nicaragua are in an excellent state, and safely accessible during daytime.

Managua, sometimes offering dangerous street crossings.

The quiet- inland, serenity and space.

Modems and Computers , a fully stacked ICT department.

Evaluating the functioning of Servers, and questioning ICT technicians about experiences.

The Inner-side of a Server Rack.

Town-hall of Teustepe.

A typical public service desk of a Town Hall. The Municipal ICT systems speed up the services offered by the municipality.

Presence of "hybrid systems": The Good Old Books and the terminals of the Municipal ICT System.

The Finnish Embassy is working for a long time already with local associations, here a sign in the cetre of Juigalpa.
Association of Municipalities of Boaco

Public Transport is best!

Cattle is an enormous asset in the departments. The Cattle Brands System keeps all under control.

Where to invest first, a question a Mayor has to answer.

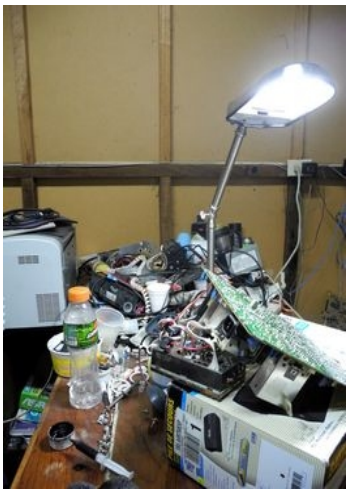
Food is good and pure.

The best way for travelling to the remote areas is often by horse.

Finding a hotel was well arranged....

Typical Juigalpa...

ICT Department – In Christmas mood



Requesting training in the repair of equipment, was one of the points to be noted...

All to the honour of La Virgen Immaculada during the religious festivities of the Purísimas

The Municipality Acoyapa works with the Land Register System.

A mayor explaining what the challenges are in managing a municipality.

Access to Internet and WiFi for the Local Area Network. Some Municipalities have their own solutions ready.

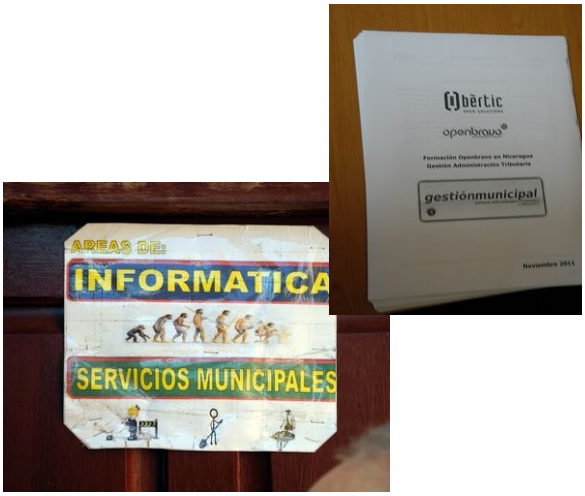
The Nicaraguan National Epidemiological Surveillance System (SISNEVEN) is one of the successes of the Ministry of Health.

The communication room.
For 24 hours a day is contact with the outer posts for exchange of information.

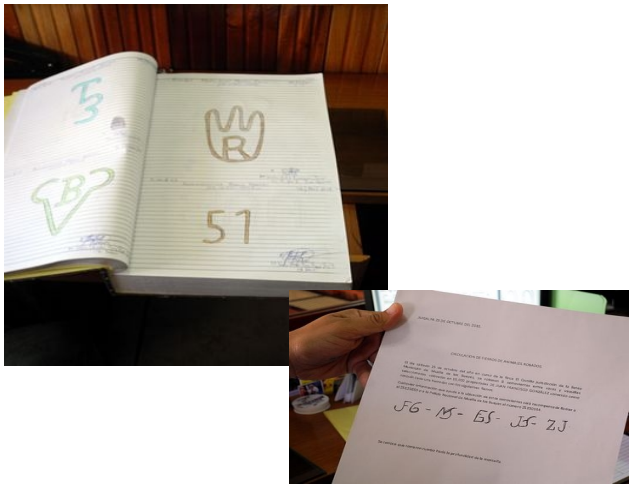
Proudly shows an ICT Technician the installed equipment.

Despite the Purísima festivities, were the most mayors and technicians enthusiast in talking to the evaluation mission.

Reporting work in the little spare time...



Life-Cycle of an ICT Project and the relation to the new Municipal ICT System?



Cattle Brands System

The hybrid system for tracing cattle. It works.

A public Internet Café.

An empty café because of communication problems. Internet connectivity is sometimes problematic.

A technicians work is also running an Internet Café.

A battery Back-Up system for the server and communication equipment.

In the main towns older antennas are visible for satellite communication.

Almost unnoticed arise in the strategic places the cellular phone communication towers.

A visit to the Twin Town Office El Rama – Maastricht.

The mayor of El Rama and her Team.

The electricity grid is not stable – it is a must for the safety of the ICT equipment to have a good power back-up system.

The town-hall of Muelle de los Bueyes was closed, the meeting with the staff was next door..

Radio Manantial on 102.5 MHz FM is popular in Zelaya Central. The manager wants to know how to make Internet Radio...

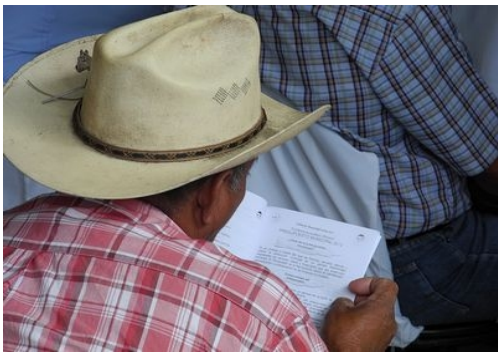
A community radio station is still the only way to reach the main part of the rural population. Here the interview room – audio studio.

Public Municipal Council Session. Earlier times mostly horses, these days most motor cycles.

Public is interested and prepared.

The young mayor of Nueva Guinea is ICT aware.

Statistical and budget information is handled by the Municipal ICT systems.



Only 5 % of the population is computer literate, so the public has access to municipal information by means of printed material.

El Rama main street.

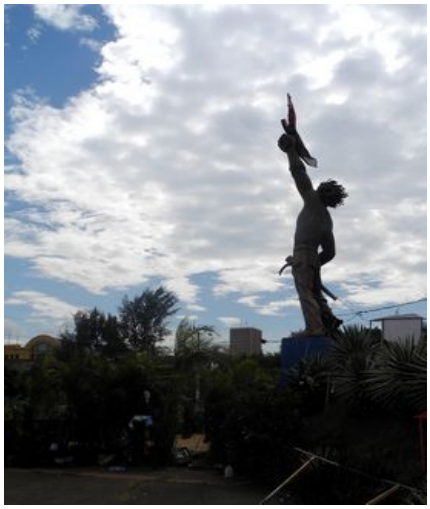
La Gorda.

Finding space for the ICT Department is mostly a problem.

A workshop with representatives of Zelaya Central.

Finding out how the to-days democratic system was functioning.

Way back to the Capital...



Managua.

The photos were take with a NIKON Coolpix P7000 camera and prepared for this document by the Open Source GNU Image Manipulation Program GIMP (http://www.gimp.org)

Annex 6

List of persons interviewed by the Evaluation Mission

Jaakko Jakkila	Embassy Finland Managua
Salvador Tapia L.	Embassy Finland Managua
Lilian Tom	Embassy Finland Managua
Pio Blanco	Director AMUZEC
Victor Byubank	Teustepe, ICT Administrator
Ninoska Oporta	Teustepe, ICT Technician
Franklin Gevarra	Teustepe, ex - ICT Technician
Victor Baez	Teustepe, Cadastre
Ernesto Briones	Ex-Technical advisor SIF
Rafael Ernesto Rivas	Monitoring Municipal ICT Project
Marco Lehto	Ex Embassy
Pablo A. Hurtado D.	Ex Technician TIC – Municipal
Carlos Becerra	Ex CTA Managua
Irene Isabel Leiva	AIN Technical support
Hjalmar Ayestas Toruno	President AIN
Tania Castro Baltodano	AIN Team leader
Josep Carles Bayarri Obèrtic	OpenBravo project leader
José Omar Moncada	Ex-Ministry of Finance (MHCP)
Sonia Castro González	Minister of Health
Daniel Urbano Gamez	Sub-Director External Cooperation, MoH
Samir Aquilar Parrales	Director SILAIS Chontales, MoH
Samy Perez Moreno	Director Silais Boaco, MoH
Fredman E. V. Calderon	Director ICT, MoH
Freddy Pineda Z.	Consultant, CHF
Gilberto Lindo	CHF Technician
Roberto Sosa	CHF DCOP - Technician
Xiomara Guzman	Municipality San Lorenzo, Secretary
Leopoldo Flores	Municipality San Lorenzo, employee

Lester Chanches	Boaco, Technician
Eugidio Sequera Lopez	Boaco, Website reporter
Eva Talada	Boaco, ex vice mayor
Mary Elisabeth F.	Boaco, Resource person
Julio A. Obando	Boaco, Mayor
Marie Elisabeth Flores	Boaco, Grupo Fundema NGO – Web management
Eva Tablada	AMUB, Board member
Marcos Antonio Sandeval	San Lorenzo, Mayor
Xiomara Guzman	San Lorenzo ICT responsible
Harry Bostran	Citizen Boaco, ICT Programmer
Ing. Jorge Arnesto Alm	TELCOR/FITEL Director
Richard Lopez Vanegaz	TELCOR Director Frequencies
Edmundo Lacayo Castillo	TELCOR/FITEL Coordinator Projects
Juan José Castillo	Santo Tomas, ICT responsible
Justino del Socorro S.	Villa Sandino, Mayor
Denis Oporta Correa	Villa Sandino, ICT Manager
José Francisco Lago	Villa Sandino, Secretary
Leonela Contreras	Villa Sandino Internet Café Manager
Ualda Lucila Obando	El Rama, Mayor
Carlos Centeno A.	El Rama, ICT Manager
William O. T. Urbina	El Rama, Coordinator Maastricht – El Rama
Francisco J. Balmacedo	El Rama, Director Rural Planning and Development
Giovanny Gonzales	AMUZEC Ex AECID
Lucia Sequiera	AMUB Ex director
Yamil Vargas	ASOCHOM
Gilberto Perez Matus	Muelle de los Bueyes, Mayor
Alejandro Obando	Director AMUB
Cornelio A. M. Martínez	Nueva Guinea, Director Local Radio Station
Marcio P. Parrales	Nueva Guinea, Municipal Director
Kriss Ramirez	Nueva Guinea, Technician
Nelly Serrano	Santo Tomás, Mayor
Karla Ivania T. Osorio	La Libertad, Representative of the Mayor

Divnieski Liseth P. Lara	La Libertad ICT Manager
Francis Saoali Gozales	Acoyapa, ICT Assistant
Armando R. Chaverra	Acoyapa, Mayor
Alexis Arguello	Acoyapa, ICT Technician
Maria Elena G. Gallardo	Juigalpa, Mayor
Carlos Rodriguez Cano	Juigalpa, ICT Technician
Vladimir E. Chavnia	Juigalpa, Municipal Technical Manager
Dilma Maria S.Uboina	Silais Chontales, Information responsible
Noel A. Miranda Miranda	Silais Chontales, Data Help desk health posts
Marcio Palacio Parrales	Nueva Guinea, Municipal Director
Christian Ramires	Nueva Guinea, ICT Manager
Denis Obando Marin	Nueva Guinea, Mayor
Socorro del R.J. Lopez	Muelle de los Bueyes, Cashier
Lira Hilagro G. Faleno	Muelle de los Bueyes, Administrative Manager
Miguel Campos	Ex-ICT project
Maria Luisa Babini D.	Travel coordinator, ex Embassy of Finland
Eva Tablada	AMUB
Miguel Urbina	San José de los Remates, Vice Mayor
Marlon Sovalbarro	San José de los Remates, ICT Technician
Johny Malespin	San José de los Remates, Cyber cafe owner
Edward Centeno	Director INIFOM

Annex 7

Detail of websites functioning in the regions of Boaco, Chontales and RAAS.

The project initiated a large number of websites, designed and implemented by AIN/UNI.

Training was given to local content managers, who also maintain the websites and introduce actualities. In January 2012, the mission tested the availability of 38 websites, all making part of the project activities. Three websites did not show after browsing the domain name; three other websites showed a Login page instead of a standard Front-page. The unavailability can be due to maintenance or connectivity problems.

http://www.alcaldiaboaco.gob.ni	Does not function
http://www.teustepe.info.ni	Functions, shows as front page a login form
http://www.teustepe.gob.ni	Functions
http://www.sanjosedelosremates.info.ni	Functions, front page is login form
http://www.sanjosedelosremates.gob.ni	Functions, front page is login form
http://www.santalucia.info.ni	Functions
http://www.santalucia.gob.ni	Functions
http://www.sanlorenzo.info.ni	Functions
http://www.sanlorenzo.gob.ni	Functions
http://www.camoapa.info.ni	Functions
http://www.camoapa.gob.ni	Functions
http://www.comalapa.info.ni	Functions
http://www.comalapa.gob.ni	Functions
http://www.sanfranciscodecuapa.info.ni	Functions
http://www.sanfranciscodecuapa.gob.ni	Functions
http://www.alcaldiajuigalpa.gob.ni	Does not function
http://www.lalibertad.info.ni	Functions
http://www.lalibertad.gob.ni	Functions
http://www.sanpedrodelovago.info.ni	Functions
http://www.sanpedrodelovago.gob.ni	Functions
http://www.santodomingo.info.ni	Does not connect
http://www.santodomingo.gob.ni	Functions
http://acoyapa.info.ni	Functions

http://acoyapa.gob.ni	Functions
http://www.santotomas.info.ni	Functions
http://www.santotomas.gob.ni	Functions
http://www.villasandino.info.ni	Functions
http://www.villasandino.gob.ni	Functions
http://www.elcoral.info.ni	Functions
http://www.elcoral.gob.ni	Functions
http://www.nuevaguinea.gob.ni	Functions
http://www.nuevaguinea.info.ni	Functions
http://www.elrama.info.ni	Functions
http://www.elrama.gob.ni	Functions
http://www.muelledelosbueyes.info.ni	Functions
http://www.muelledelosbueyes.gob.ni	Functions
http://www.elayote.info.ni	Functions
http://www.elayote.gob.ni	Functions

The websites show, in the opinion of the mission, a very pleasant and attractive "look & feel".

It is up to the users of the website to judge the usability of the offered content. All websites include a clear link to www.finlandia.org.ni, however the opinion of the evaluation team is that one crucial issue is missing in all websites; namely the links to sites which would promote and explain the Municipal ICT concept.

It proposed that:

** In each municipal website, be it .gob.no or .info.ni, a menu tag is added that points to a local article explaining the Municipal ICT principles, the modules in use, and the reason why Municipal ICT is applied.

** A special page with all links to other websites of municipalities that follow the ICT concept.

Municipal system

** Analyse the content of each website from the point of view of the world wide web user, donors, promoters of the Municipal ICT concept and e-governance supporters. Optimize the websites for search engine friendliness, and apply, for example, the Google Rules for a good website. In short: use the websites for Municipal ICT promotion.

** Municipal ICT is in principal part of the concept of e-governance. The word governance is sometimes not often referred to, for a reason not known to the evaluators. Clearly explaining in what way the Municipal ICT principles are related to e-governance will improve the internet visibility of the websites to a wider interested public.

Annex 8

Some technical observations in relation to a possible replication of the Project

Replicating the project concept for other municipalities is only advisable when certain conditions are met. Most important is that the Municipal ICT concept is agreed upon by all participants involved. This includes acceptance of a uniform format of the databases, exactly defined information exchange protocols, and commonly accepted procedures for how to handle the varying physical circumstances (availability of internet communication, electricity power supply, what information needs to be exchanged, availability of staff, data integrity and security).

As Municipal ICT is a technical tool, it needs a centralised management structure.

In case a common operational basis is not first met, replicating the project concept to other municipalities will be counterproductive because the lack of data exchange will create isolated islands of municipalities participating in the concept.

Include from the very beginning the possibility to join a kind of `Professional Municipal ICT Guild', by means of inscription via a website. This is for all those involved or interested in Municipal ICT, by means of training, use or interest in the issue. The registered users make a solid basis for sending newsletters at regular intervals, and offer possibilities for keeping the links between the very scarce Municipal ICT knowledge bases open.

For example: register from the very beginning of a project action all e-mail addresses of participants in training. Send at regular basis more information about Municipal ICT activities. This offers a solid knowledge base in Municipal ICT. Guarantee for a longer period the project execution time during which the domain names and hosting costs will be covered. However, at the same time include in the trainings from the very beginning the principles and costs of ownership of a Municipal ICT system, including the municipal websites.

The mission is of the opinion that the governmental Municipal ICT systems should be managed according to entrepreneurial principles. The Municipal ICT technology, functioning as a tool, should be managed in a centralised way. The users of this system on the other hand will experience this system as democratic, since the intercommunication between peers is guaranteed.

The technology in use for the management of the websites is to some extend well organised. The technology is centrally maintained by AIN, while the users (to a certain level) can play around with the content in a democratic way.