

WATER FOR LIFE ASSESSMENT

Nicaragua  
July 2014



Organizational Evaluation of  
El Porvenir  
“Clean water, Healthy Communities”

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## SUMMARY

El Porvenir (EP) is a NGO constituted in 1989 and officially established in Nicaragua since 1990 and registered on May 1992. Since 1989 EP has subscribed covenants with more than 550 Nicaraguan communities to build more than 1000 water and sanitation projects. EP envisions working with responsibility, respect, transparency and solidarity offering water and sanitation access to rural communities with gender equity, attention to vulnerable population –women and children-, education, hygiene and health, watershed and water sources protection, especially in municipalities with higher poverty.

*Water for Life Assessment* is a global initiative with background on the Accountability Forum held on December 2011 in Lempira, Honduras, where independent evaluators and organizations who support water and sanitation projects met to conduct an organizational assessment to a local NGO based on 22 criteria.

In this opportunity the assessment was to El Porvenir getting important information regarding reliability as a non-profit organization as well as useful lessons that might be shared with other organizations, and the identification of challenges to improve the organization's performance.

The evaluation included programmatic and organizational criteria. It consisted of the review of documents from EP (legal and financial statements, technical plans, organizational structure, budget etc.) and detailed interview with the executive director and managers of the implementing organization and visits to local offices to know working conditions that influence execution and monitoring. The evaluators visited a community that was selected as exemplary of their work and then visited six communities chosen at random from more than 1000 projects. In each of the communities the evaluators conducted interviews with Water Boards, Focus groups with residents, inspection of the water service infrastructure (e.g., water catchment, hand-dug wells, storage tank, latrines, etc.) and a sample of visits to households to observe household infrastructure and level of sanitary education.

The results of the evaluation show that EP complies satisfactorily with 17 of the 22 categories. From the standpoint of sustainability no extreme hazard is identified. EP scores 44 points (67%) out of a possible 66 when all high/exceptional expectations are all met in all categories.

Summing up and according to the criteria established, EP fulfills the basic criteria with some challenges that are marked with yellow but other areas where they reach blue - the optimum level- and hence EP is to be recommended to donor organizations.

## CONTENT

<b>SUMMARY</b>	<b>1</b>
<b>1. INTRODUCTION</b>	<b>4</b>
<b>2. SCOPE OF THE EVALUATION</b>	<b>4</b>
<b>3. INFORMATION ON NICARAGUA</b>	<b>5</b>
<b>4. BACKGROUND OF EL PORVENIR</b>	<b>5</b>
4.1 Organizational Model	6
4.2 Systems Design	6
<b>5. MUNICIPALITIES VISITED</b>	<b>7</b>
<b>6. ASSESSMENT METHODOLOGY</b>	<b>8</b>
6.1 Description	8
6.2 Rationale for the methods used	9
6.3 Key domains and criteria applied	10
<b>7. SYSTEMS EVALUATION</b>	<b>12</b>
7.1 Community Selection	12
7.2 Description of systems visited	12
7.3 Project Characteristics in each Community	19
7.4 Household Observations	21
7.5 Evaluation Results	23
7.5 Summary	37
<b>8. CONCLUSIONS</b>	<b>39</b>
<b>APPENDICES</b>	<b>41</b>
Annex 1. Photos	41
Annex 2. Interviews to Water Boards (CAPS)	48
Anexo 3. Focus Groups	48
Annex 4. Households Observations	49
Annex 5	51

## Figures

<b>Figura 1. Hand-dug wells with rope pumps .....</b>	<b>7</b>
<b>Figure 2. Results of Household Observation Surveys (includes La Ceibita) .....</b>	<b>22</b>
<b>Figure 3. Results of Household Observation Surveys (not included La Ceibita) .....</b>	<b>22</b>

## Tables

<b>Table 1. El Porvenir offices and opening year .....</b>	<b>6</b>
<b>Table 2. Key Domain and Criteria used for the Evaluation .....</b>	<b>11</b>
<b>Table 3. Distribución de visitas por evaluador .....</b>	<b>12</b>
<b>Table 4. Water System Characteristics .....</b>	<b>19</b>
<b>Table 5. Financial information .....</b>	<b>20</b>
<b>Table 6. Access to Water and Sanitation Services .....</b>	<b>20</b>
<b>Table 7. Characteristics of Water Boards (CAPS).....</b>	<b>21</b>

**Disclaimer:** This report summarizes the findings and the evaluation conducted by the independent evaluators to El Porvenir based on the Water Rating System. The complete report is in Spanish and the translation corresponds to Franz Rojas and might have some differences with the original version. Hence the Spanish version should prevail and be read in order to clarify ideas and conclusions.

## 1. INTRODUCTION

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El Porvenir is a NGO constituted in 1989 and officially established in Nicaragua since 1990 and registered on May 1992.

Since 1989 El Porvenir has subscribed covenants with more than 550 Nicaraguan communities to build more than 1000 water and sanitation projects. El Porvenir envisions working with responsibility, respect, transparency and solidarity offering water and sanitation access to rural communities with gender equity, attention to vulnerable population –women and children-, education, hygiene and health, watershed and water sources protection in municipalities of Nicaragua with higher poverty.

*Water for Life Assessment* is a global initiative with background on the Accountability Forum held on December 2011 in Lempira, Honduras, where independent evaluators and organizations who support water and sanitation projects met to conduct an organizational assessment to a local NGO based on 22 criteria.

In this opportunity, besides Water 1st participation there was presence of other NGOs: Water Aid-Nicaragua, Living Water International and ACRA (Italy).

## 2. SCOPE OF THE EVALUATION

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The main objective of the evaluation is to determine if the organization is credible and has used funding to support projects that are providing long-term services. Basically, we asked, “Based on their existing body of work, is funding this organization a good investment?”. This is not an impact or sustainability study, though insights into these themes emerged during data collection.

*Water for Life Assessment* is an initiative born from Water1st’s belief that until long-term functionality of interventions affects organizations’ ability to find future funding, monitoring and evaluation activities are unlikely to be a high priority for many organizations. The main aim is to encourage strong projects implementation from a holistic perspective. The assessment includes objectives within this overarching aim: i) Motivate and incentivize monitoring and evaluation of projects using a common framework; ii) Provide independent evaluation to donors that focuses on programming, not simply finances; iii) Provide a platform for cross-organizational learning and networking for field staff and iv) Help organizations learn how to monitor and evaluate

### **3. INFORMATION ON NICARAGUA**

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Nicaragua has a population of about 6.0 million within 129.494 km<sup>2</sup> with 58.1% living in urban centers. It is one of the most impoverished countries of Central America. The nation is divided into three Regions: Pacific where most of population lives (56%), Central North with 31% and the Caribbean Region which represents the major part of the country but with presence of 13% of the population.

Nicaragua has adhered to consider water and sanitation access as a Human Right. Water coverage in Nicaragua is above 85% (JMP, 2014) but piped water is around 64%. Sanitation remains a challenge. According to the Joint Monitoring Program sanitation coverage is around 52% at national level but in rural areas is around 37%. According to national statistics, urban sanitation coverage in 2011 was 35.6% with sewerage served by 28 systems and the rest with latrines; in rural areas sanitation coverage was 75% served mainly with latrines. In summary at least 15% of households have no access to sanitation despite of the government efforts to support sanitation investments. This percentage requires priority due to recent studies confirming high correlation between open defecation and stunting with irreversible effects in children (Spears, 2013).

It is important to notice NGOs work on Water and Sanitation Network in Nicaragua (RASNIC), focused on scattered rural communities where El Porvenir participates as Vice-coordinator. RASNIC complements by means of NGOS the governmental efforts to provide universal access to the population.

### **4. BACKGROUND OF EL PORVENIR**

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El Porvenir (EP) is a NGO with presence in Nicaragua since 1990. His vision is to improve the living conditions and health of rural communities in Nicaragua through an integrated approach to accessing clean water. EP partners with rural communities in the implementation of water, hygiene, and reforestation projects using simple, appropriate technology and locally available materials that can be repaired and maintained by the community.

EP is focused on water projects by means of different technology (hand-dug wells with rope pumps, drilled wells, and water spring catchments with gravity-fed piped systems –MAG according to Spanish acronym- as well as pumped systems –MABE based on Spanish acronym-) and hand-washing stations in schools. Sanitation is provided by collective laundries and toilets, sand bio-filters and family latrines. The also work on water sources protection and forestry on micro watersheds and also with sanitary education focused on health and environment to promote system's sustainability.

EP has a Strategic Plan 2014-2018 including vision and mission for the organization and the establishment of priority guidelines on water and sanitation. EP has a set of procedures to optimize human resources and materials to guarantee adequate use of financial budget. Since

June 2012 EP has a Financial and Accounting Procedures Manual and an Internal Operations By-Law.

One of the strengths of the organization is to have prototypes models for designs along with standardized costs and educational materials for training which in sum are important to unify education courses given by the educational promoters.

#### 4.1 Organizational Model

EP has his headquarters in Managua. Due to the interventions are focused on seven municipalities from the North and Northeast Region EP has set local offices to intensify his presence and to work with better efficiency during the construction process, monitoring and the supervision of the works financed.

**Table 1** shows the Departments and Municipalities where EP has offices.

*Table 1. El Porvenir offices and opening year*

Departament	Municipality	Opening Year
Matagalpa	Darío	1989
Matagalpa	Terrabona	2006
Boaco	Camoapa	1994
Boaco	San Lorenzo	2006
León	El Sauce	1999
Jinotega	Wiwilí	2008
Managua	Managua	1990

Staff is composed by 24 persons in Nicaragua and 3 people in United States of America; 23 persons are Nicaraguan. The Executive Director works in Managua along with the Operations Director and the Administrative and Financial Director, and there are four Regional Coordinators.

#### 4.2 Systems Design

Water systems from EP are: gravity-fed piped systems (MAG) or pumped piped water (MABE), hand-dug wells with rope pumps, drilled wells and hand-washing stations in schools and collective laundries. **Figure 1** shows hand-dug wells. Sanitation is provided by scholar toilets, sand bio-filters and family double pit latrines –latrines were built with single pit before-.

*Figura 1. Hand-dug wells with rope pumps*



## 5. MUNICIPALITIES VISITED

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Municipalities visited during the survey are the following.

**Municipality of Ciudad Darío.** This Municipality belongs to Matagalpa Department. Population is 39.000 inhabitants where 53% is rural, 8% is peri-urban and 39% is urban. This Municipality was impacted by Mitch Hurricane affecting households and water systems. Extreme poverty is 31%. The communities visited were La Ceibita and Nancital.

**Municipality of El Sauce.** This Municipality belongs to Leon Department. Population is 30.400 inhabitants where 73% is rural and 27% is urban. Extreme poverty is 42%. The community visited was Las Mercedes.

**Municipality of Terrabona.** This Municipality belongs to Matagalpa Department. Population is 11.100 inhabitants where 85% is rural and 15% is urban. Extreme poverty is 47%. The community visited was Montegrande.

**Municipality of San Lorenzo.** This Municipality belongs to Boaco Department. Population is 24.700 inhabitants where 70% is rural and 30% is urban. Extreme poverty is 42%. In this Municipality the community visited was Masapía.

**Municipality of Camoapa.** This Municipality belongs to Boaco Department. Population is 36.600 inhabitants where 59% is rural and 41% is urban. Extreme poverty is 48%. In this Municipality the communities visited were Masiguito and Zuma.

## 6. ASSESSMENT METHODOLOGY

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### 6.1 Description

The evaluation included different aspects:

- Review on documents from EP (legal and financial statements, technical plans, organizational structure, budget etc.)
- Visit to local offices to know working conditions that influence execution and monitoring;
- Presentation by and detailed interview with the executive director and managers of the implementing organization (El Porvenir),
- Site visit to a community EP selects as exemplary of their work (La Ceibita);
- Selection of six communities at random;
- Interviews with the water boards in each community;
- Focus groups with residents in each community;
- Inspection of the water service infrastructure (e.g., water catchment, hand-dug wells, storage tank, latrines, etc.) in each community
- Visits to several homes in each community to observe household infrastructure and discuss water and sanitation services.

Survey questions and evaluation criteria are based on Water Rating System tools and input from multiple implementing organizations in the water and sanitation sector.

Criteria are grouped into eight main categories:

- 1) Organizational structure,
- 2) Water services,
- 3) Sanitation,
- 4) Hygiene education,
- 5) Design and construction,
- 6) Operations and maintenance,
- 7) Water source protection and
- 8) Community commitment and management

The process was the following: All the participants would visit the exemplary community selected by EP to harmonize procedures during the evaluation and to have a site as benchmark of the work

of EP. For the other visits the groups was divided by two, each of them led by one of the independent evaluators.

EP provided a list of the total of community water systems they have implemented since inception (more than 1000). The list was confirmed. Eight community names were randomly selected from the list of projects as representatives and finally six of them were confirmed to be visited based on different technology used and the age of the infrastructure.

The process for interviews and infrastructure inspections are briefly described below.

**a) Interviews to Water Boards (CAPS)**

The water board interviews were held with most or all members of the current water board. The discussion included questions regarding financial management, operation and maintenance, rules and regulations for use, future planning and water source protection. We also reviewed water board records including bank balances, maintenance expenditures and status of household fee payments, secretary meeting notes with meeting frequency, and legal documents related to the water system and source.

**b) Interviews to Community Members**

Focus groups were held with 6-8 community members who in turn represented -in some cases- the total of the community visited apart from the water board members. Questions discussed included satisfaction, reliability (including response to breakdowns), quality, quantity and payment of water service, hygiene education, and typical sanitation service in the community.

**c) Inspections of Infrastructure**

The evaluation process included visits to a water source, community tanks and distribution lines to investigate construction quality and evidence of long-term water source protection such as reforestation, fencing and evidence of maintenance. The independent evaluators had visited the water sources from the seven communities visited.

**d) Household Observations**

For household observations, groups of two to three people visited several homes that were representative of the local geographic area (i.e. community center, upper areas and lower areas)..

All results in this report are backed up with evidence from multiple sources including community water board members, community members, organization staff and observation of documentation.

## **6.2 Rationale for the methods used**

A previous report elaborated by one of the independent evaluators explained the rationale of the methods used which a synthesis ix describe below.

- Qualitative, in-depth approaches allow for the inclusion of contextual and rich data. It is difficult to capture what is going on in each community through quick numeric surveys.

The removal of contextual information from an evaluation that includes many variables which cannot be controlled can lead to misinterpretation of results.

- Information beyond the project status for the day of the visit is desired. In order to gather complete information from multiple stakeholders on project performance and satisfaction over the project lifetime, in-depth interviews are needed.
- The ability for each research group to spend part of the day in each community allows time for informal conversations to get to know community members outside of interview and focus group questions. This typically makes community members feel more comfortable and respected and provides time for community members to voice their opinions in their own time and to share information they feel is important.
- Case study approaches are acknowledged as a robust research method<sup>1</sup> where variables cannot be controlled and when trying to answer questions of how and why, such as how and why an organization's work is successful or not. Without this contextual information it may be easy to assume an organization's work is poor or exemplary without understanding the full picture which may reveal otherwise.

### 6.3 Key domains and criteria applied

In accordance with the methodology described, the evaluation does not solely depend on interview questions or information provided by EP, but includes a triangulation of information obtained from the community water boards, the state of infrastructure, focus groups with community members ("beneficiaries"), and random inspection of household facilities. The evaluation used is divided in eight Key-Domain and 22 criteria which are presented below (**Table 2**).

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<sup>1</sup> See Yin, R. (2003). Case study research: design and methods (4<sup>th</sup> ed.). Thousand Oaks: Sage Publications.

*Table 2. Key Domain and Criteria used for the Evaluation*

<b>Key Domain</b>	<b>Criteria</b>
A. Organizational structure	1. Collaboration or coordination with other water and sanitation organizations 2. Organization is concerned with improving water & sanitation program quality 3. Organization is sustainable and maintains solid business practices
B. Water Services	4. Water system post-construction 5. All households in community have convenient access to a safe water supply 6. Water fee payment 7. Water board policies
C. Sanitation	8. Most people in the community have access to a sanitary toilet 9. Toilets are well-used in a sanitary manner & users are satisfied with the toilets 10. Users have replacement strategy for toilets not connected to sewage system
D. Hygiene Education	11. Household water use is sufficient to meet all needs for consumption/hygiene 12. Households demonstrate increased health and hygiene awareness over time
E. Project design & construction	13. The community has legal authority for the water source and water system 14. Water quality is tested and treated appropriately 15. Water system is appropriately designed and well-constructed 16. Toilets/sanitation system is appropriately designed and well-constructed
F. Water system Long-term O&M	17. System is well-used and users are satisfied with the system 18. Repairs are addressed quickly and system undergoes routine maintenance 19. User fees are paid by beneficiaries & system is financially self-supporting
G. Water source protection	20. An active water source protection or environmental education component exists in the community
H. Community commitment & management	21. Community makes a financial contribution to the capital cost of the project 22. A competent local water board is created and functions effectively

Each of the criteria evaluated includes a series of questions and/or requests for documents to verify results. Each sub-criterion/question is used to determine the scoring of each variable using a qualitative color scoring according to the following:

<b>Red</b>	Extreme problems encountered
<b>Yellow</b>	Organization does not meet all of the basic expectations listed for the metric – “caution”
<b>Green</b>	Organization meets all the basic expectations listed for the metric, but does not meet all the high/exceptional expectation criteria – “going well”
<b>Blue</b>	Organization meets or exceeds all criteria for high/exceptional expectations in the metric – “above and beyond”

The following provides a brief summary based on the criteria evaluated including evidence (based on questions asked during the study) supporting the assessment conducted to El Porvenir.

## 7. SYSTEMS EVALUATION

### 7.1 Community Selection

Based on random selection described above two groups were organized, each one led by the independent evaluator with distribution as shown in **Table 3**. The visit to the exemplary community (La Ceibita) was done with all the participants.

*Table 3. Distribución de visitas por evaluador*

Department	Municipality	Community	Project	School?	# Families	# persons	Rural/Urban	Year Project
Matagalpa	Dario	La Ceibita	Single pit latrines		19	79	R	2009
Matagalpa	Dario		Pumped piped system		19	50	R	2008
Boaco	San Lorenzo	Masapia	rehabilitated water well		28	116	R	2008
Boaco	San Lorenzo		rehabilitated water well	Yes		60	R	2008
Boaco	San Lorenzo		Double pit latrines	yes		60	R	2008
Boaco	Camoapa	Masiguito	Gravity-fed piped system		15	105	R	2005
Boaco	Camoapa	Suma	New well		6	21	R	2005
León	El Sauce	Las Mercedes	rehabilitated water well		17	92	R	2002
León	El Sauce		Collective laundries		17	92	R	2002
Matagalpa	Dario	Nancital	Double pit latrines		14	144	R	1995
Matagalpa	Dario		New well		9	45	R	1995
Matagalpa	Dario		rehabilitated water well		9	40	R	1995
Matagalpa	Terrabona	Monte Grande	rehabilitated water well		23	81	R	2008

Source: Data Base from El Porvenir

Led by XM
Led by FRO

### 7.2 Description of systems visited

#### La Ceibita

Community is located in Matagalpa. The system has an artesian well with a pumping system to a storage tank of 6 m<sup>3</sup>. It has an open distribution network controlled by meters in each household. Beneficiaries are 16 households with approximately 50 people.

Pumping operates two to three hours a day during early morning (5 to 8 am) to fill the storage tank. It has an altitude valve to control water filling and to avoid spillover.

Community has single pit latrines in each of the households.



**Well operated by electrical pumping**



**Storage tank of 6 m3**



**Single pit latrine**



**Single pit latrine**

## Las Mercedes

In this community EP has rehabilitated two hand-dug wells with rope pumps: one is used for human consumption and the second one has a collective laundry nearby.



This community is integrated by 27 households, 13 are supplied by the water well but there are latrines installed in 39 households covering the whole community and surroundings.



## Nancital

EP has rehabilitated two hand-dug wells with rope pumps and a collective station for laundry. Water for consumption is supplied by a new well drilled by Nuevo FISE with adequate chemical and bacteriological characteristics.

	
<p><b>hand-dug well with rope pump rehabilitated</b></p>	<p><b>hand-dug well rehabilitated</b></p>

## Monte grande

EP has rehabilitated hand-dug wells with rope pump, one is used for water consumption and the second has a collective station for laundry. La Pita sector with 20 households in Monte grande is supplied by the rehabilitated water well aforementioned and the community Cuajiniquil has an electrical system (MABE) who is eventually served by the water well from La Pita when an electrical cut is presented.



## Masapía

It is located in Boaco. It has a hand-dug well with rope pump which supplies to 26 households with approximately 130 persons. The water well is built in the middle of the community. Another hand-dug well is in the school but is no longer used for consumption due to sulfates presence in the water (smell as rotten egg) and possibly with presence of iron and manganese.

The community has double pit latrines in each of the households.



Hand-dug well with rope pump for consumption by the community



Hand-dug well with rope pump for use for laundry due to presence of sulfates.



Double pit latrine



Double pit latrine

## Masiguito

It is located in Boaco. Consists of a gravity-fed piped system from a water spring catchment. It has a storage tank of 5 m<sup>3</sup> and supplies water to 12 households in a scattered area. Discharge was measured 3 L/min and 2,6 L/min within two points nearby the water intake. For the community water discharge should be 5 L/min, which in turn requires water management during droughts.

		
<b>Water catchment</b>	<b>Storage tank</b>	<b>Water tap to use for two households</b>

## Zuma

It is a small community who live inside private property (called “colonos”). The system consists of a hand-dug well with rope pump. Families transport water with buckets from the water well to their households around 5-10 minutes walking. The water well supplies to 7 households i.e. 50 people. There is no sanitation except a multiple latrine built by the owner of the private property.



### 7.3 Project Characteristics in each Community

**Table 4** summarizes technical aspects regarding water and sanitation systems. **Table 5** presents financial aspects and **Table 6** is related to water and sanitation access.

*Table 4. Water System Characteristics*

Community	Year Built	System Components	Metered	Chlorinated
1. Las Mercedes	2002 and 2007	-Hand-dug well with rope pump -Collective station for laundry: 3 toilets and 3 laundries.		
2. Nancital	1995 and 1998	--Hand-dug well with rope pump - Collective station for laundry: 2 toilets and 2 laundries	No	Yes
3 Monte Grande	2007	--Hand-dug well with rope pump - Collective station for laundry: 3 toilets and 3 laundries.		
4. Masapía	2008	-Hand-dug wells with rope pump (one with sulfates)	No	Yes, at their homes
5. Masiguito	2005	- Spring catchment - Storage tank - Distribution network - 8 water connections for 12 households	No	Yes, at their homes
6. Zuma	2005	- Hand-dug wells with	No	No

		rope pump for 7-8 households		
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*Table 5. Financial information*

Community	Savings Córdobas Beginning	Savings Córdobas (May 2014)	Initial Tariff (C\$/mth)	Current Tariff (C\$/mth)
1. Las Mercedes	N/d	115	N/d	<b>No</b>
2. Nancital	N/d	2,000	N/d	50.0
3 Monte Grande	N/d	1,200	N/d	5.0
4. Masapía	500	3,090	10.0	20.0 50.0 to a village
5. Masiguito	N/d	3,700	10.0	10.0
6. Zuma	N/d	N/d	No	<b>No</b>

N/d- No data

*Table 6. Access to Water and Sanitation Services*

Community	Connection fee for new residents	Connection fee for relatives	# HH Connected	% HH connected but no sanitation	% HH total with no sanitation
1. Las Mercedes	No		13 HH by the water well. 27 latrines	0%	0%
2. Nancital	No		16 HH initially <sup>2</sup>	8%	2%
3 Monte Grande	Variable contribution for repairs		20 HH from the water well.  No latrines	16%	40%*
4. Masapía	No charge	Gratis	26 HH	0%	0%
5. Masiguito	USD 200	USD 200	12 HH	0%	0%
6. Zuma	No charge	Gratis	7 HH No latrines	85%	85%

<sup>2</sup> Currently 25 with the support of another water well built by another organization

*Table 7. Characteristics of Water Boards (CAPS)*

Community	# Members	# Women	Rotation System	Member compensation	Meeting Frequency
1. Las Mercedes	5	2 Vocals	Elected in Community Assembly	No charge. Ad honorem	Monthly
2. Nancital	7	3 Treasurer and y Vocals			
3 Monte Grande	6	1 Vice President			Monthly
4. Masapía	5	5			
5. Masiguito	6	2			Every three months
6. Zuma	3	0			Eventually

#### 7.4 Household Observations

Results from seven communities visited (including the exemplary community) include 40 inspections to households to evaluate hydraulic conditions at water taps and sanitation. **Annex 5** presents the observations from the independent evaluators and some of the participants. **Figure 2** presents a summary including La Ceibita and **Figure 3** excludes the results from this community.

Figure 2. Results of Household Observation Surveys (includes La Ceibita)

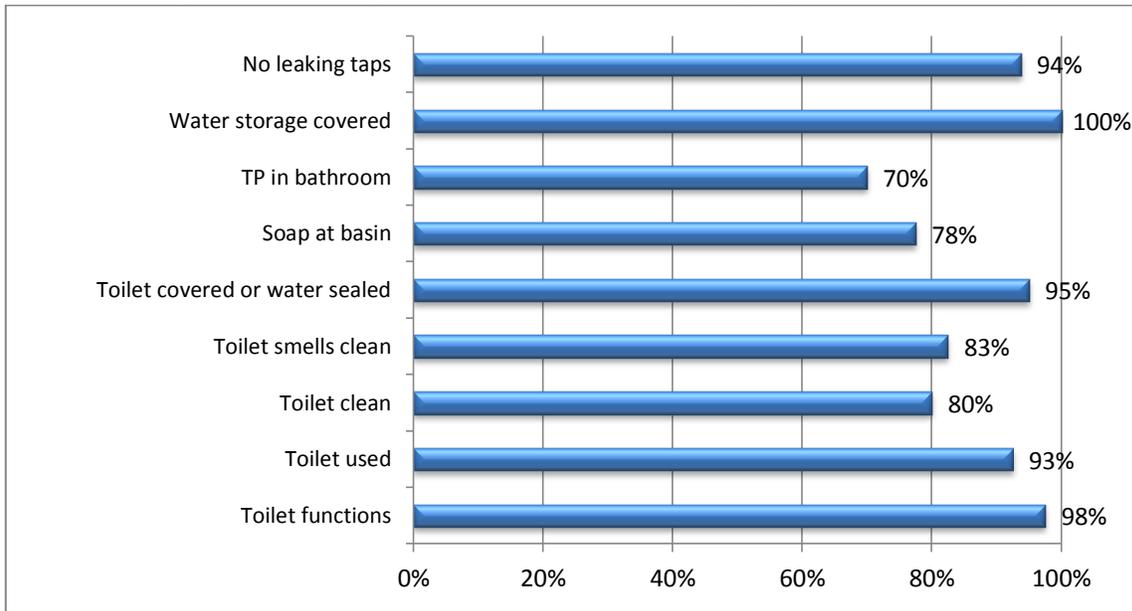
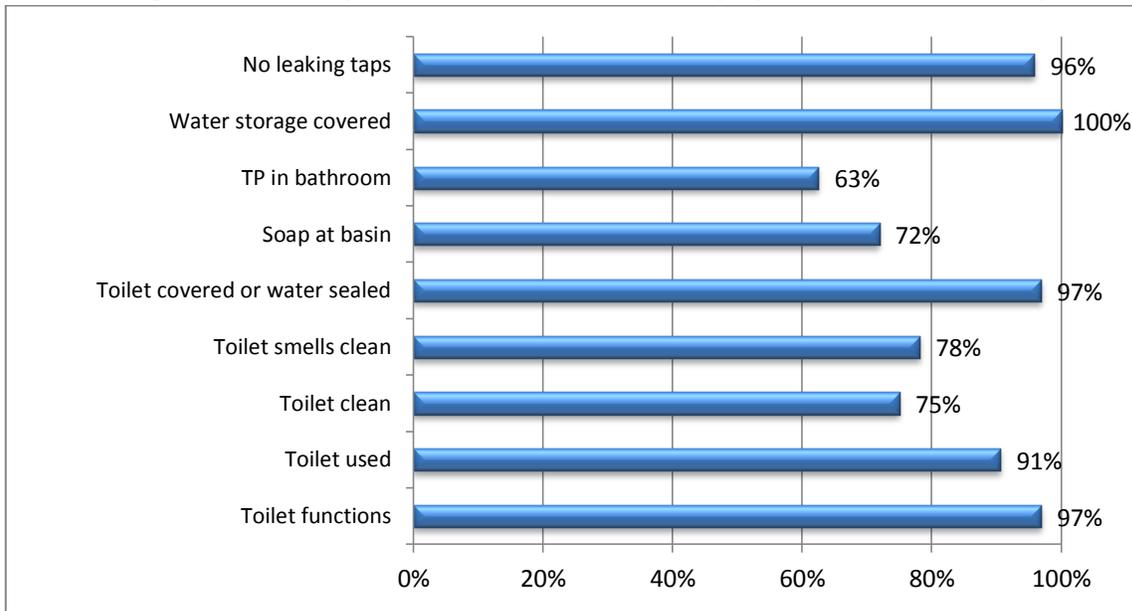


Figure 3. Results of Household Observation Surveys (not included La Ceibita)



## 7.5 Evaluation Results

### A. Organizational Structure

#### Metric 1: Coordination with other water & sanitation organizations

Expectation		Result
Basic	Organization knows principal public/private organizations in the region involved in water and sanitation projects.	✓
	Organization is aware of national water laws and their application to the types of projects implemented	✓
	Organization has an informal relationship with other public/private organizations involved in water and sanitation projects in the region	✓
High	Organization has a formal relationship with other public/private organizations involved in water and sanitation projects in region or is a member of water/sanitation network.	✓
Score: BLUE		

**Metric 2: Organization is concerned with improving water and sanitation program quality**

Expectation		Result
<b>Basic</b>	Organization has internal standards to define a "successful" and "sustainable" project.	✓
	Organization has had the opportunity to learn from observing another organization's work.	✓
	Organization is involved (monitoring) with the communities upon project completion for 2 years	✓
	Organization conducts a thorough baseline study of community conditions.	✓
<b>High</b>	Organization has an ongoing structure to improve program quality and has made specific changes in project implementation or internal operations in the last two years.	✓
	Organization has had an evaluation of its water and sanitation projects conducted by another organization.	✓
	Organization is involved (monitoring) with the communities upon project completion for 5 years	✓
	Organization conducts a thorough baseline study of community conditions, records data, and uses data for assessment of outcomes	✓
<b>Score: BLUE</b>		

**Metric 3: Organization is sustainable and maintains solid business practices**

Expectation		Result
<b>Basic</b>	Organization has an annual budget	✓
	Organization tracks income and expenditures	✓
	Organization is legally registered in the country where it is operating.	✓

	Organization has a bank balance that exceeds liabilities	✓
	Organization has a mission statement and by-laws or equivalent organizational management documentation.	✓
	Organization produces an audited annual financial statement/report.	✓
	Organization has a design standard for toilets.	✓
	Organization uses a set of water system design standards	✓
High	Organization tracks income and expenditures according to standard accounting practices	✓
	Organization has a bank balance that exceeds liabilities and organization has stable annual funding.	✓
	Organization has a 3-plus year strategic plan	x
	Organization undergoes annual audit of its finances as well as overall managerial performance by independent external auditing firm selected through transparent and participatory way.	✓
	Organization has specialists in relevant fields (finance, engineering, community development, hygiene education)	✓
	Organization's design standard for toilets meets national standards and internationally accepted criteria	✓
	Organization's design standard for water systems meets national standards and internationally accepted criteria	x
	Organization is flexible and adapts to donor requirements (% counterpart, use of flexible funds, etc)	✓
<b>Score: GREEN</b>		

## B. Water Service

Water services are well managed at the local level including well-functioning community water boards consisting of three to seven community members rotating every year to include all members of the community.

**Metric: 4. Water system post-construction**

Expectation		Result
Basic	Is there a water board made up of community members to govern the water project?	✓
	Are the water board members chosen regularly and with community participation?	✓
	Does the organization train the water board members?	✓
High	N/A	
<b>Score: BLUE</b>		

*Note: In some communities frequency of meetings is not well established, although this aspect is not considered during this evaluation.*

**Metric 5: All households in the community have convenient access to a safe water supply**

Expectation		Result
Basic	75% of households in the community have access to water every day, within a 15 minute round trip walk (including queuing and container filling time)	✓
High	All households in the community have access to water 24 hours each day for house taps, or during reasonable operating hours for public taps located within a 15 minute round trip walk (including queuing and container filling time)	✗
	When the water system is undergoing maintenance, households boil/chlorinate/treat their water supply to make it safe while waiting for maintenance activities to conclude	✗
<b>Score: GREEN</b>		

### Metric 6: Water fee payment

Expectation		Result
Basic	Households are charged a user fee for using the system	X
	The organization provides guidance regarding enforcing the payment of water fees	✓
High	The organization provides sufficient guidance for setting water fees	X
Score: YELLOW		

### Metric 7: Water Board policies

Expectation		Result
Basic	The organization promotes community self-reliance for future upgrades. (recommend building a surplus in a savings account)	✓
High	The water board ensures regular participation of members of the community in the Board	✓
	The water board has a policy to increase water coverage in accordance with growth and demand of the population	X
Score: GREEN		

### C. Sanitation

EP promotes on-site sanitation including sanitary modules with single pit latrines and recently with double pit latrines, offering prototype designs and covering most of the capital costs.

**Metric 8: The majority of the population has access to basic sanitation**

Expectation		Result
Basic	Organization encourages 100% of community members to build and use sanitary toilets	✓
	More than 60% of households have access to a sanitary toilet	✓
	More than 60% of households that moved to the community after the project was implemented have access to a sanitary toilet	✓
High	More than 80% of project households have access to a sanitary toilet	✓
	More than 80% of total households in the community have access to a sanitary toilet	✗
	More than 80% of project households have access to a sanitary toilet	✓
<b>Score: GREEN</b>		

**Metric 9: On-site sanitation system is used hygienically and users are satisfied**

Expectation		Result
Basic	75% of the toilets constructed are clean, functioning properly, being used as toilets, and covered (water seal or other physical seal)	✓
	More than 70% of households report being satisfied with the toilets	✓
High	90% of the toilets constructed are clean, functioning properly, being used as toilets, and covered (water seal or other physical seal)	✗
	More than 90% of households report being satisfied with the toilets	✓
<b>Score: GREEN</b>		

**Metric 10: Users have a replacement strategy for toilets not connected to public sewage**

Expectation		Result
Basic	There is a Plan/Strategy when toilets need to be replaced	✓
	More than 75% of households can describe what they will do when the toilet needs to be replaced (e.g. when the pit on a VIP fills up)	✓
High	More than 80% of households can describe what they will do (or have done) when the toilets needs to be replaced (e.g. pit fills up)	✓
Score: BLUE		

**D. Hygiene Education**

**Metric 11: Household water use is sufficient to meet all needs for consumption and hygiene**

Expectation		Result
Basic	Did you integrate health education training?	✓
	Project goals for hygiene education	✓
	Water system is designed to provide at least 50 liters per capita per day (l/c/d)	✗
	There is evidence that more than 60% of users have increased water use for hygiene purposes.	✓
High	Water system is designed to provide at least 100 l/c/d	✗

	There is evidence that more than 80% of users have increased water use for hygiene purposes	X
<b>Score: YELLOW</b>		

**Metric 12: Households demonstrate increased health and hygiene awareness over time**

Expectation		Result
<b>Basic</b>	More than 60% of households have soap present	✓
	More than 60% of households have a covered drinking water storage container.	✓
	More than 60% of households report either boiling or chlorinating their drinking water	✓
<b>High</b>	More than 80% of households have soap present	X
	More than 80% of households have a covered drinking water storage container	✓
	More than 80% of households report either boiling or chlorinating their drinking water	✓
	Animal access to the house is prevented in more than 80% of households	X
<b>Score: GREEN</b>		

## E. Project Design

### Metric 13: The community has legal authority for the water source and water system

Expectation		Result
Basic	Community has documentation of the legal process it went through to obtain permission for the water source and system	✓
High	Community is the owner or has a long-term concession for the use of the water source	✓
Score: BLUE		

### Metric 14: Water quality is tested and treated appropriately

Expectation		Result
Basic	Initial water quality of source water (bacteriological and chemical) is tested and meets country water quality standards	✓
High	Water quality (bacteriological and chemical) is tested annually against country water quality standards	✓
	If standards are not met, community takes appropriate steps to remedy the situation and bring water quality back to acceptable standards	✗
Score: GREEN		

### Metric 15: Water system is appropriately designed and well-constructed

Expectation		Result
Basic	Water source is sufficient to meet the needs of the community for at least 20 years.	✓
	Water system is designed and constructed to last at least 20 years	✗

	Water system is a closed system (through water seals on well-heads, capped springs, or other methods, doesn't allow contamination inside)	✓
	Water system components can be found in-country and community members are aware of where replacement parts can be found and their approximate costs	✓
	Quantity of water designed in water systems (L/c/d) is enough	x
	System is designed (considering pressure & number of taps) so that once users arrive at a tap they do not have to spend more than 5 minutes waiting in line & filling their container	✓
High	Construction management and oversight is vigorously implemented	✓
	Organization uses a set of water system design standards	✓
	Appropriate/good quality materials are used for water system infrastructure.	x
<b>Score: YELLOW</b>		

**Metric 16: Toilet/sanitation system is appropriately designed and well-constructed**

	Expectation	Result
Basic	Sanitation system is isolated from the water source	✓
	Organization's goal for sanitation coverage increase are clear	x
	Sanitation system is designed for 100% of community members to use	✓

	Toilet is designed and constructed to last at least 2 years before needing replacement	✓
	Organization uses a set of toilet design standards	x
High	Toilet is designed and constructed to last at least 5 years before needing replacement	✓
<b>Score: YELLOW</b>		

## F. Long-term operations and maintenance

### Metric 17: Water system is properly used and customers are satisfied

Expectation		Result
Basic	More than 75% of the community uses the water system.	✓
	More than 75% of the customers are satisfied with the water system.	✓
	Other resources are established for long-term sustainability including rehabilitation and/or project extension in communities.	✓
	A long-term vision for access to water, toilets and improved hygiene practices for the beneficiary communities.	✓
High	More than 90% of the community uses the water system.	x
	More than 90% of the customers are satisfied with the water system.	x
<b>Score: GREEN</b>		

### Metric 18: Water system repair issues are addressed quickly and water system undergoes routine maintenance

Expectation		Result
Basic	Water system components are inspected and maintained on a regular basis	✓

	Water system is repaired within 48 hours of breakage	✓
High	Piped water systems are metered to help identify leaks	✗
<b>Score: GREEN</b>		

**Metric 19: Tariffs are paid by the users and the system is financially sustainable**

Expectation		Result
Basic	More than 75% of families pay the water bill regularly	✗
	More than 75% of families know the consequences of not paying their water bill	✓
High	More than 95% of families pay the water bill regularly.	✗
	More than 90% of families know the consequences of not paying their water bill	✗
<b>Score: YELLOW</b>		

**G. Water Source Protection**

**Metric 20: An active water source protection or environmental education component exists in the community**

Expectation		Result
Basic	The water projects have an environmental education component and/or protection of water sources	✓
	Water Board knows water cycle and how human activities affect the availability and purity of water supply	✓
	The quality and quantity of the source water has been maintained for 5 years or more	✓

High	The quality and quantity of the source water has been maintained for 20 years or more	✓
	The water board has determined allowable uses of water from the project and effectively monitors and enforces these issues	✗
<b>Score: GREEN</b>		

## H. Community Commitment and Local Project Management

### Metric 21: Community makes a financial contribution to the capital cost of the Project

Expectation		Result
Basic	Community contributes 10% of the project capital cost through cash (up front or over time via a loan) and/or in-kind contributions	✓
High	Community contributes 25% of the project capital cost through cash (up front or over time via a loan) and/or in-kind contributions	✓
	Loans to communities have a default rate of less than 10%	✗
<b>Score: GREEN</b>		

### Metric 22: A competent local water management board is created and functions effectively

Expectation		Result
Basic	Board members have received training to prepare them for their roles (e.g. accounting, leadership)	✓
	Board meets regularly and has minutes of past meetings	✓

	Users are satisfied with the board	✓
	Board tracks income and expenditures and has a bank balance that exceeds liabilities	✓
	Women have held positions on the Board	✓
High	At least 25% of board positions are held by women	✓
	Board is increasing savings towards a savings goal for future upgrades/expansions.	x
	Board is representative of the community and users are satisfied with the board	✓
	Board enforces collection of fees by water system users	x
	Evaluations of Board accounts are conducted, either by the community or other body.	✓
	Water management board makes policy decisions (e.g. increases in water use fees, connection fees for new users of the water system).	✓
<b>Score: GREEN</b>		

## 7.5 Summary

Key Domain	Variable	Score
<b>A. Organizational Structure</b>	1. Collaboration or coordination with other water and sanitation organizations	Blue
	2. Organization is concerned with improving water and sanitation program quality	Blue
	3. Organization is sustainable and maintains solid business practices	Green
<b>B. Water Services</b>	4. Water system after construction	Blue
	5. All households in community have convenient access to a safe water supply	Green
	6. Water fee payment	Yellow
	7. Water board policy	Green
<b>C. Sanitation</b>	8. Most people in the community have access to a sanitary toilet	Green
	9. Toilets are well-used in a sanitary manner and users are satisfied with the toilets	Green
	10. Users have replacement strategy for toilets not connected to sewage system	Blue
<b>D. Hygiene Education</b>	11. Household water use is sufficient to meet all needs for consumption/hygiene	Yellow
	12. Households demonstrate increased health and hygiene awareness over time	Green
<b>E. Project Design and construction</b>	13. The community has legal authority for the water source and water system	Blue
	14. Water quality is tested and treated appropriately	Green
	15. Water system is appropriately designed and well-constructed	Yellow
	16. Toilets/sanitation system is appropriately designed and well-constructed	Yellow
<b>F. Water system Long-term O&amp;M</b>	17. System is well-used and users are satisfied with the system	Green
	18. Repairs are addressed quickly and system undergoes routine maintenance	Green
	19. User fees are paid by beneficiaries & system is financially self-supporting	Yellow
<b>G. Water Source Protection</b>	20. An active water source protection or environmental education component exists in the community	Green

<b>H. Community commitment &amp; management</b>	21. Community makes a financial contribution to the capital cost of the project	Green
	22. A competent local water board is created and functions effectively	Green

Each variable is of equal weight and numeric scores for Blue is 3 and for Green is 2. Yellow is equal to 1 and applies when the organization meets most of variables corresponding to basic level and Red equals to zero (0). EP scores 44 points out of a possible 66 if high/exceptional expectations were all met in all categories. There are 5 variables where EP meets high expectations (blue), 12 variables where they meet basic standards (green) and five (5) where they do not fully comply with basic standards (yellow).

<b>Qualitative Score</b>	<b>Quantitative Score</b>
Blue	3 points
Green	2 points
Yellow	1 point
Red	0 point
Score possible if all high expectations are met	66 points
Score possible if all basic expectations are met	44 points
<b>El Porvenir Score</b>	<b>44 points (67%)</b>
5 Blue is equal to	15 points
12 Green is equal to	24 points
5 Yellow is equal to	5 points
<b>Total</b>	<b>44 points</b>

## 8. CONCLUSIONS

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Water Rating System focused on the evaluation of El Porvenir (EP), a local NGO set in Nicaragua, which has been implementing water and sanitation programs for over 20 years. Over one week in May 2014, EP was evaluated based on 22 criteria of likelihood to provide long-term services as an indication of money well spent by donor organizations.

Evidence shows systems installed approximately 20 years ago are still functioning and being used. From a sustainability perspective, probability of economic sustainability needs to be improved because even though some of the communities have regular fee payments to cover operating costs and generate savings for future repairs, renovations and upgrades, some others (three from seven) do not apply water fee for maintenance costs and a fourth has a growing default rate.

In the social dimension, community knows and is involved with the water system and water source protection. There is also a high level of participation in regular meetings. From the environmental perspective, EP and communities are concerned on watershed management and care. In two of the more structured system (MAG and MABE) communities are owner of the land around water intake an even more around their micro-watershed. The reforestation, fencing and other land management efforts reflect the importance placed on water resource quantity and quality.

In summary, key aspects of good results are described below.

### **Strengths:**

- Up to 20 years later the water systems are functioning except in two cases of problems mentioned above
- Organization: All the systems visited still have functioning water boards
- Ownership: water boards take care of their systems
- Maintenance: water boards have made the repairs necessary to date –except some cases where a major repair is needed-. Community members and/or the local plumber have skills and knowledge to make repairs and know where to go for parts.
- Design: sufficient to support many years
- Financial: Some of the systems have savings for eventual investments and/or repairs
- Education: Training has been effective. Water systems are clean and most of the latrines visited were clean.
- No budget limit is established per project. It allows EP to have flexibility in their designs and their investment albeit they depend on the contributions and external funds.

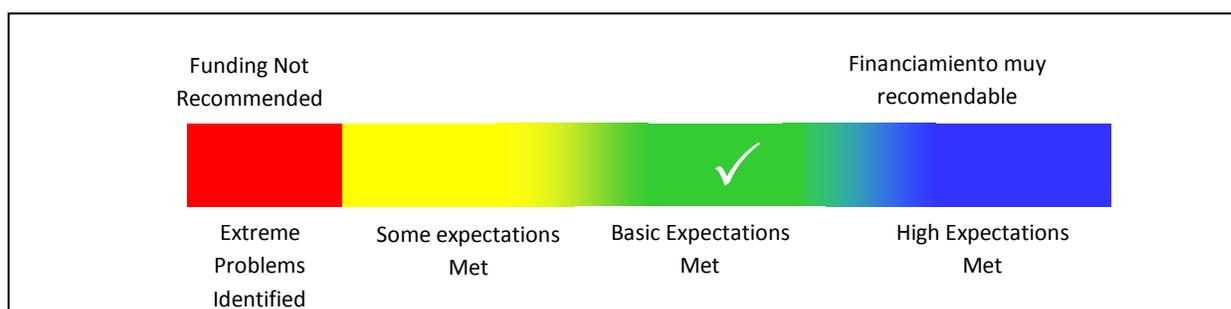
### **Challenges:**

- Water and sanitation: regardless of the original demand expressed by the community, it is appropriate to encourage a combination of water system and sanitation system

improvements, because lack of any of these services is closely associated with poverty. What we are seeking is to improve the quality of life of people, and both services are considered Human Rights.

- Sanitation concept should add the possibility of a module for a bathing area as well as the latrine.
- Financial and social sustainability: reinforce especially in older systems the monthly water payments; evaluate also savings destiny from CAPS and use of “rent” especially for water board members.
- A menu of technological options is desirable: depending of the community (concentrated or scattered), presence of electricity for the MABE option or a MAG based on spring catchment feasibility, in summary, more long lasting projects than hand-dug wells which are more suitable for disperse areas with a minimum number of households nearby.
- To continue the implementation of the Exit Strategy in areas with long presence of EP. Strategy implies community ownership with the systems along with active measures from the local governments.

Though still facing a number of challenges, El Porvenir has shown good work in a challenging sector and, according to the criteria established, receives a score of 67% or a status of “green”. This means EP complies with basic standards and although some of the variables are needed to improve and pass to “green”, in other variables EP reaches “blue” which is the optimum score. Hence El Porvenir is considered suitable for a recommendation for future funds from donors and international organizations.



**Report prepared by:**

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**La Paz and Managua, July 12, 2014**

# APPENDICES

## Annex 1. Photos

### La Ceibita



Las Mercedes



Nancital



Monte Grande



Masapía



Masiguito



Zuma



## **Annex 2. Interviews to Water Boards (CAPS)**

**Please refer to the Spanish Version**

## **Anexo 3. Focus Groups**

**Please refer to the Spanish Version**

#### Annex 4. Households Observations

Comunidad	El Baño funciona	El baño está siendo utilizado	El baño está limpio	El baño no tiene mal olor	La taza está cubierta (o tiene sello)	Hay jabón en el lavamanos	Hay papel higiénico en los baños	Almacenamiento de agua está cubierto	Las llaves no gotean
La Ceibita	Sí	Sí	Sí	Sí	No	Sí	Sí	Sí	Sí
	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí
	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí
	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí
	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí
	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí
	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	No
Masapía	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	
	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	
	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	
	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	
	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	
	Sí	No	Sí	Sí	Sí	No	No	Sí	
Masiguito	Sí	Sí	Sí	Sí	Sí	No	No	Sí	No
	Sí	Sí	Sí	Sí	Sí	Sí	No	Sí	Sí
	Sí	No	Sí	Sí	Sí	Sí	No	Sí	Sí
	Sí	Sí	Sí	Sí	Sí	No	No	Sí	Sí
	Sí	Sí	Sí	Sí	Sí	Sí	No	Sí	Sí
	Sí	Sí	Sí	Sí	Sí	Sí	No	Sí	Sí
Zuma	Sí	Sí	No	No	No	Sí	No	Sí	
	No	No	No	Sí	Sí	Sí	No	Sí	

Comunidad	El Baño funciona	El baño está siendo utilizado	El baño está limpio	El baño no tiene mal olor	La taza está cubierta (o tiene sello)	Hay jabón en el lavamanos	Hay papel higiénico en las letrinas	Almacenamiento de agua está cubierto	Las llaves no gotean
Monte grande	Sí	Sí	No	Sí	Sí	No	No	Sí	Sí
	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí
	Sí	Sí	No	No	Sí	No	Sí	Sí	Sí
	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí
	Sí	Sí	Sí	No	Sí	Sí	Sí	Sí	Sí
	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí
Nancital	Sí	Sí	No	Sí	Sí	No	No	Sí	Sí
	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí
	Sí	Sí	No	No	Sí	No	Sí	Sí	Sí
	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí
	Sí	Sí	Sí	No	Sí	Sí	Sí	Sí	Sí
	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí
Las Mercedes	Sí	Sí	No	Sí	Sí	No	No	Sí	Sí
	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí
	Sí	Sí	No	No	Sí	No	Sí	Sí	Sí
	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí
	Sí	Sí	Sí	No	Sí	Sí	Sí	Sí	Sí
	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí	Sí

## Annex 5

**Please refer to the Spanish version**