para todos
por siempre
Agua Potable y Saneamiento en Honduras

**User Manual for
the District Financial Sustainability
Report Card – DFSRC/TSFM-**

5

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User Manual for the District Financial Sustainability Report Card
(Material intended for units or offices related to water and sanitation, and technicians from districts or mancomunidades/municipal associations)

Content

About costing tools

Before using the District Financial Sustainability Report Card tool, it is imperative that we know the main variables that act in its correct use and analysis of its results, their importance, and in which field/area they are developed.

Costing tools were developed in order to analyze the different categories of costs necessary to provide a sustainable service, and to determine the degree to which these categories can be covered; synthesizing its results in the District Financial Sustainability Report Card tool.

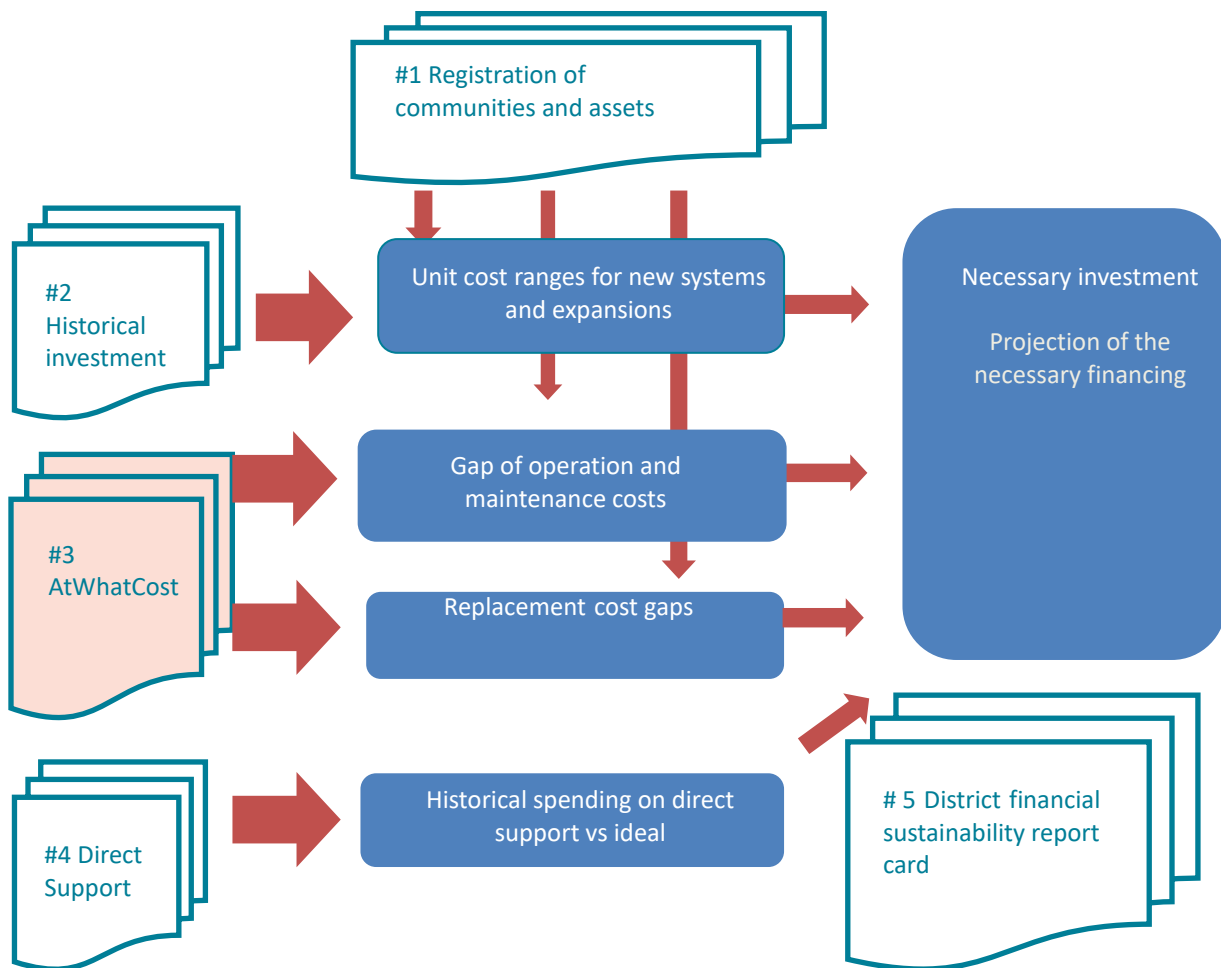In the figure below you can see the interrelationship of the tools and the type of analysis.

Figure 1: Interrelationship between costing tools, towards a financial balance at the district level

Broadly speaking, you can summarize each of the tools as follows:

- Community and asset registration tool: It is the only tool that is not for costing. It is a tool used to identify the systems and communities that will require new or replacement investments in the coming years, as well as in the identification of risks.
- Historical investment tool: aims to identify unit reference costs for different types of investments (including new systems, additions, replacements, for different technologies) through a breakdown of investments actually made in a determined period, as in the last five years.
- AtWhatCost Tool: is a tool to be used by water boards. It allows a committee to evaluate their level of income and expenses over time and analyze necessary changes in their cost management. Among other things, it allows one to analyze the expenses necessary for operation and maintenance, and determine an appropriate tariff taking into account one's financial equilibrium score, and the potential to cover certain replacement costs.
- Direct support tool: is to be used by the technicians of the district, and seeks to analyze whether their current spending is adequate to fulfill all of their functions. It also allows one to analyze those changes in district's budget that are necessary for it to fulfill its functions.
- The District Financial Sustainability Report Card: is a tool that facilitates the analysis of the results from the use of the previous tools. Determining when and how much it costs to reach universal water service coverage (Everyone), and that it be sustainable Forever. The tool is described in detail in this manual.

1. What is the District Financial Sustainability Report Card (DFSRC/TSFM) about?

Objective of the tool

The District Financial Sustainability Report Card (DFSRC/TSFM) is a synthesis tool. Based on the results from the use of the other costing tools (see figure 1). It presents all the financial resources needed in the coming years to reach universal coverage (Everyone), in a sustainable manner. These data can be used mainly in multi-year district planning processes, and in the district's mobilization of resources to implement these plans.

So, the District Financial Sustainability Report Card:

- Is based on the **asset** and community **registration tool** to identify which communities and which systems require an intervention (new construction, expansion or replacement) in the coming years.
- Then that information is combined with the unit costs, obtained in the **historical investment tool**, to project the total investment required in new systems, expansions and replacements and their distribution over time.
- Then using the **AtWhatCost tool** (on a sample of communities), the level of co-financing of investments on the part of the communities is included.
- Finally, the **DFSRC** takes the information from the **Direct Support tool**, about the difference between the cost of current direct support and that which is required. To add it to the total cost required to reach universal coverage and determine the amounts to be mobilized.

The tool can also be used directly to estimate if one has already reached or when one will reach universal coverage.

Structure

The tool is a file in EXCEL, consisting of 8 tabs, 3 of which correspond to the tool for registering communities and assets. Here is a description of each of the tabs:
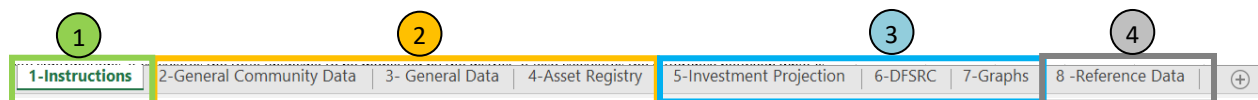
1. • Instructions. Presents a summary on the use of the tool for the user.

2. Then there are 3 tabs in which you have to enter data.

- <u>General data on communities</u>. It is a tab with general information on water systems and communities, including their population, coverage and level of service. It is filled in the same way as the community and asset registration tool.
- <u>General Data.</u> This tab includes: financial data (year of analysis and inflation), data about the district (name and population), unit cost data (from the historical investment tool), counterpart data (from the AtWhatCost tool), and current and required support costs (from the direct support tool).
- <u>Asset registry</u>. It is the same as in the asset register. It takes part of the data from the tab of general data of communities and includes a series of cells to enter the data on the existence, age and state of the infrastructure assets. Finally, the registry contains a series of columns that calculate the risk and the priority

with which they have to be replaced. Above each column the unit to be applied per variable has been indicated, and any observation or explanation about the variables.

③ The report card also has several **calculation tabs**, for which it is not necessary to enter data. The calculations are made based on the input tabs:

- Projection of investments. This tab calculates, by community or system, the population to be covered by different types of intervention, and the investment required in the next 10 years for new systems, expansions and replacements. It contains a breakdown of these calculations per year. Above each column, there is the explanation and the unit of the values in the database.
- The DFSRC. This report card presents a summary of the calculations made in the investment projection. It indicates by year, the total investment required in new systems, expansions, and replacements. Based on the expected percentage of community counterparts, it calculates the total financing to be mobilized by the district. It also calculates the difference between what is currently spent on direct support and what is required. This is another amount to be mobilized by the district. Finally, it calculates the projected evolution of coverage in the district.
- Graphs, which represent the summary of the financial card using various types of graphs

④ Finally, the DFSRC has 1 tab with **reference data.** This tab has data with information about the useful life of different types of assets. For Honduras, data is used from " Technical Regulation Parameters for underground water systems design". There are also unit reference costs, which can be used if you decide not to use the historical investment tool.

2. How to fill in the DFSRC tool?

Required data

All the data necessary for the DFSRC to work is obtained by using the other tools. It does not require additional information. So this manual focuses on the entry of data (from the other tools) and how to analyze the results.

Data entry

As this tool is the synthesis of the others, several steps of these tools are repeated. Therefore, a summary will be made here for the benefit of users who only use the DFSRC. Although full details can be found in the respective manuals for each tool.

Before starting, bear in mind that the orange colored cells indicate fields that the user must fill in with the indicated information.

a) Fill in or update the general data on the communities

The first step is to fill in the general data on all the systems and communities in the district's area. This data corresponds to the "General Community Data", which is found in the asset registry tool, therefore one only has to "copy and paste". This information comes from the Information System for Rural Water and Sanitation (SIASAR), FLOW (Field Level Operations Watch, Water For People's Internal

2-General Community Data

Monitoring System) or an existing one they have in the districts. When they have no monitoring information system, a field assessment is conducted. See manual of the *asset registry tool* for more details.

b) Enter asset data into the asset register and review the prioritization calculation

In the next step, the missing data is entered into the "asset register" tab (orange cells). This data is the same that appears in the *asset registry tool*. So when one does a "copy and paste" in this tab, the tool automatically generates a prioritization of assets to be replaced. This prioritization must be revised/reviewed, according to the explanation in the corresponding manual.

c) Fill in other general data

When filling out the " General data " tab one also uses the results from other applications. In this tab, the first fields (financial data and general data on the district, see Figure 2) require reference data, such as inflation rate, population growth rate and total population of the district (municipality).

Financial Data			
Variable	Value	Units	Notes
Current Year	2018		
Rate of Inflation	5.0%	%	

General Data for the Municipality			
Variable	Value	Units	Notes
Name of municipality	San Antonio de Cortes	Lempiras	
Rate of increase of the population	0.0%	%	Average by municipality according to the
Number of people per family	4.5	Number of people	Average by municipality according to the
Initial population at the beginning of: 2018	27,990	Number of people	
Population with water access at the beginning of: 2016	24,476	Number of people	

Figure 2: Screenshot of the boxes to enter the district's financial and general data.

The following table (see figure 3) appears in the tab mentioned above and is used to determine the reference unit costs (per capita costs). The use of the *Historical investment tool* will have generated unit costs, and ideally with a breakdown, for example by technology (pumping or gravity) and if they are investments in new systems, expansions or replacements. The results, with this level of breakdown, are filled in this table. Be aware that the historical investment tool is the one that will probably take the most time to complete. If you do not have the unit costs according to the historical investment, you *can use the data according to the reference (from tab 8) that are pre-filled*. The latter are based on the cost study of IRC, using the database of the FHIS projects. (https://www.ircwash.org/node/78996).

Data provided from other tools: historical investment					
Variable	Value			Units	Notes
Cost of investment in new systems	According to historical investment	According to reference data	Value used in the calculations		
Rural and dispersed		L. 10,840.70	L. 10,840.70	Lempiras per person	In the case that the historical investment tool has not been used, the value used in the calculations is according to the reference data.
Rural and concentrated		L. 7,065.05	L. 7,065.05	Lempiras per person	Same as above
Cost of investment in extensions					
Rural and dispersed		L. 2,602.91	L. 2,602.91	Lempiras per person	Same as above
Rural and concentrated		L. 2,602.91	L. 2,602.91	Lempiras per person	Same as above
Cost of investment in replacements					
Rural and dispersed		L. 2,660.12	L. 2,660.12	Lempiras per person	Same as above
Rural and concentrated		L. 2,660.12	L. 2,660.12	Lempiras per person	Same as above

Figure 3: Screenshot of the reference unit costs (per capita costs).

Then, this tab has a box for data from the *AtWhatCost tool* (see figure 4). It refers to the community co-financing data expected for both investments in new systems and in replacements In this table, the data is entered as a percentage. For new systems, there is often a reference, for example, of project reports, with details about the level

of co-financing. And as for the counterpart in replacements, the data can be obtained by applying **AtWhatCost** to a sample of Drinking Water and Sanitation Administration Boards (JAAS) and analyze what are the percentages that they are able to cover with the tariff. In the table you can enter them as an average.

Data provided from other tools: AtWhatCost			
Variable	Value	Units	Notes
Community contribution to new systems	15% %		Averaged from applying AWC
Community contribution to extensions and replacements	15% %		Averaged from applying AWC

Figure 4: Screenshot of the community counterpart for new systems and replacements.

Finally, the tab has a box for direct support data (see figure 5). In the **direct support tool,** it not only calculates the current total amount and that required in direct support, but it also converts it into an annual cost per capita. These data are used to fill this table.

Data provided from other tools: Direct Support			
Variable	Value	Units	Notes
Annual expenses per person in support	HNL 15.35	Lempiras per person per year in the municipality of San Antonio de Cortes	
Annual required spending per person in support	HNL 23.18	Lempiras per person per year in the municipality of San Antonio de Cortes	

Figure 5: Screenshot of the direct support spending screen

d) Review investment projection

Once all the aforementioned information has been entered, the tool performs the calculations. It is important to review the calculations, to better understand the summarized final result. The main thing is to review the "Investment Projection" tab. It is a long tab that projects by system, the number of people to be covered by investments in new systems, in extensions and in replacement, and identifies for each one the year in which this investment must be made. To do so, the following algorithms are used:

5-Investment Projection

- Communities that do not yet have an improved water system are prioritized to be invested in during the first year.
- Communities that require replacement investments are prioritized according to the year in which the system reaches the end of its expected useful life (see an explanation of how that is determined in the manual for the asset registry tool)
- Communities that require an expansion will get it in the same year as the replacement. This reflects reality, which often combines an expansion and a replacement, for greater efficiency in the implementation of the project.

The calculation tab then multiplies the populations to be served by the different types of projects with the unit costs taken from the tab with general data. In this calculation, several factors are applied, such as the inflation rate, population growth rate, and investments are projected to a future population 20 years from the time of making the investment. The above generates a projection of total investments per year and per community.

Note that this projection is automated, but it is recognized that when setting priorities, one must consider other factors not included in the model. **The user can always change the prioritization manually**.

3. Analysis of the municipal financial sustainability report card

The summary of the above calculation is presented on the municipal financial sustainability report card (see Figure 6). This report card is basically a representation of all the necessary resources at the municipal level, and an indication of the financing to be mobilized to cover this need for resources.

	A	B		C		D		E		F		G	
1		0		1		2		3		4		5	
2	YEAR	2018		2019		2020		2021		2022		2023	
3	Total population at the beginning of the year	27,990		27,990		27,990		27,990		27,990		27,990	
4	Population with access at the beginning of the year	24,476		25,262		25,872		25,890		25,890		25,890	
5	Coverage (% population)	87%		90%		92%		92%		92%		92%	
6													
7	Number of new systems built in the year	4		0		0		0		0		0	
8	Number of systems with extensions in the year	7		12		1		0		0		0	
9	Number of systems with replacements in the year	8		12		1		0		0		0	
10	Total of systems with intervention in the year	19		24		2		0		0		0	
11													
12	Total cost of new systems	HNL	4,820,163.29	HNL	-	HNL	-	HNL	-	HNL	-	HNL	-	HN
13	Total cost of extensions	HNL	684,565.76	HNL	1,667,164.90	HNL	51,654.78	HNL	-	HNL	-	HNL	-	HN
14	Total cost of replacements	HNL	88,653,882.95	HNL	19,434,559.59	HNL	3,645,351.71	HNL	-	HNL	-	HNL	-	HN
15	Total investement in the year	HNL	94,158,611.99	HNL	21,101,724.49	HNL	3,697,006.49	HNL	-	HNL	-	HNL	-	HN
16													
17	Community contribution to new systems	HNL	723,024.49	HNL	-	HNL	-	HNL	-	HNL	-	HNL	-	HN
18	Community contribution to extensions and replacements	HNL	13,400,767.31	HNL	3,165,258.67	HNL	554,550.97	HNL	-	HNL	-	HNL	-	HN
19	Total community contribution to investments	HNL	14,123,791.80	HNL	3,165,258.67	HNL	554,550.97	HNL	-	HNL	-	HNL	-	HN
20													
21	Financing to mobilize for investments by district	HNL	80,034,820.19	HNL	17,936,465.82	HNL	3,142,455.52	HNL	-	HNL	-	HNL	-	HN
22													
23	Direct support (current)	HNL	429,646.50	HNL	451,128.83	HNL	473,685.27	HNL	497,369.53	HNL	522,238.01	HNL	548,349.91	HN
24	Direct support (ideal)	HNL	648,808.20	HNL	681,248.61	HNL	715,311.04	HNL	751,076.59	HNL	788,630.42	HNL	828,061.94	HN
25	Additional financing to mobilize for support by district	HNL	219,161.70	HNL	230,119.79	HNL	241,625.77	HNL	253,707.06	HNL	266,392.42	HNL	279,712.04	HN
26													
27	Total additional financing to be mobilized by district	HNL	80,253,981.89	HNL	18,166,585.60	HNL	3,384,081.29	HNL	253,707.06	HNL	266,392.42	HNL	279,712.04	HN
28													
29	Total costs	HNL	94,807,420.19	HNL	21,782,973.10	HNL	4,412,317.53	HNL	751,076.59	HNL	788,630.42	HNL	828,061.94	HN
30	Cost per capita (HNL/person in the district)	HNL	3,387.19	HNL	778.24	HNL	157.64	HNL	26.83	HNL	28.18	HNL	29.58	HN
31	Cost per capita (US$/person in the district)	$	145.37	$	33.40	$	6.77	$	1.15	$	1.21	$	1.27	$

1-Instructions | 2-General Community Data | 3- General Data | 4-Asset Registry | 5-Investment Projection | **6-DFSRC** | 7-Graphs | 8 -Reference Dat ... ⊕

Figure 6: Screenshot of the district financial sustainability report card (DFSRC)

(a) The first rows of the report card indicate population and coverage data. It is a first check on the possibility of reaching universal (Everyone) coverage, and how progress will be made on the percentages of coverage to achieve the goal.

(b) Then, the report card indicates per year the total number of projects to be implemented, also making the breakdown, between projects such as new systems, expansions, and replacements. This number will be considered important for the district to be able to a plan the number of projects that it has to implement annually.

(c) The following rows show the summary of total investments in these projects that must be carried out annually. It is the sum of the calculations in the investment projection.

(d) Below this is displayed the total of what would be expected as a co-finance from the community. It is the application of the co-finance factor, obtained from *AtWhatCost*.

Then, subtracting the co-finance from the total investments per year, it generates a total of the financing to be mobilized for these investments. With this, the district can analyze how much of this amount it has from its own sources or from donors, and how much it still has to manage to come up with.

(e) Finally, it indicates the total current and required direct support. The difference between the two is another amount that the district must mobilize to ensure the sustainability of the services, assuming that the costs in current direct support will be maintained and one only seeks to mobilize this difference.

To perform the analysis of the different amounts of the district financial sustainability report card, the user can also rely on the different pre-defined graphs in the corresponding year. Figure 7 presents, for example, the necessary investment over time (based on partial data).
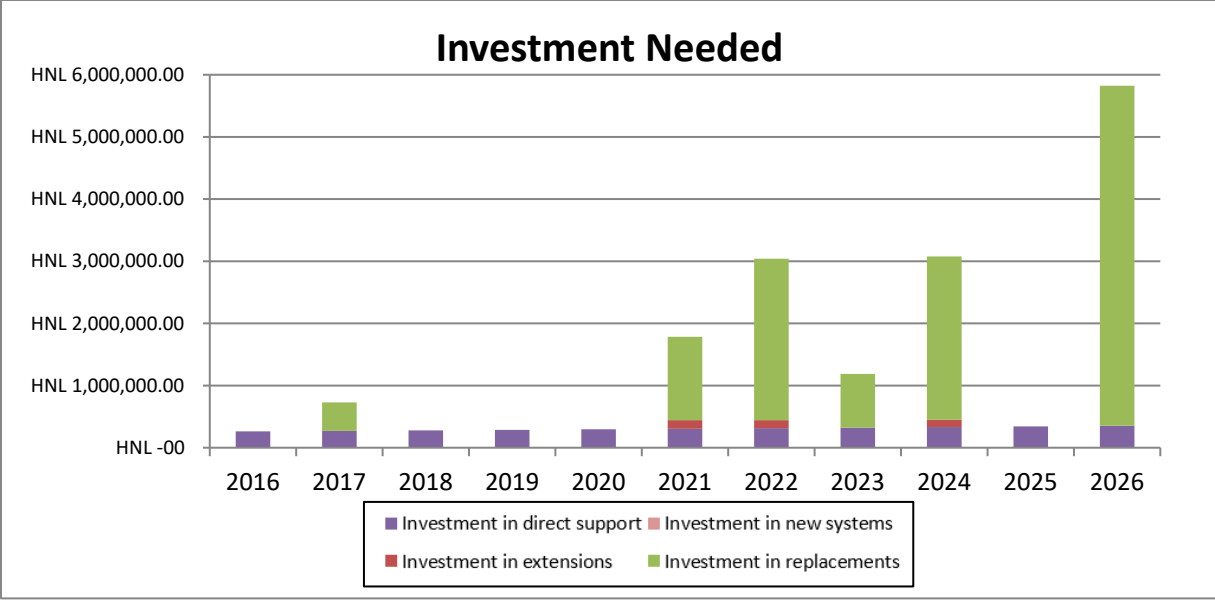
7-Graphs

Figure 7: Example of estimation of required investment

We can see for each year a bar with different colors; each color represents a type of investment to be made or a financing to be mobilized for.

In addition to the previous graph in Figure 8 one will notice another graph where the tool summarizes for us, based on the number of projects in which one would be investing per year, how much coverage would be increased.
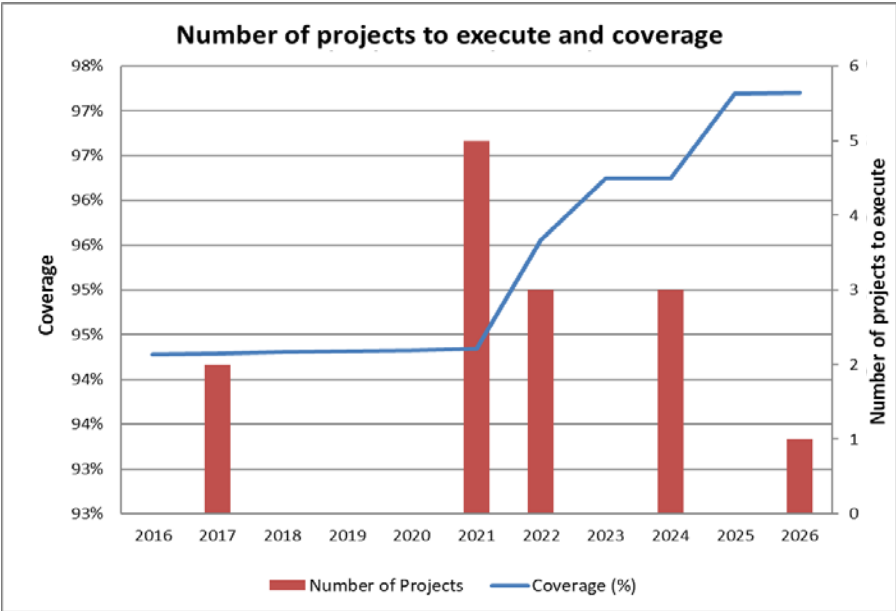

Figure 8: Increase of coverage in the district according to the number of projects to intervene in.

The results of this exercise of the use of the DFSRC should feed into multi-year planning processes of investments and efforts by the District to mobilize resources.

Sector No Gubernamental

CRS — Catholic Relief Services — faith. action. results.

water for people

care

Agua Para el Pueblo

IRC

World Vision — Por los niños

COCEPRADILI — Comité Central Pro Agua y Desarrollo de Lempira

Pure Water FOR THE WORLD

COCEPRADI I — Comité Central Pro Agua y Desarrollo de Intibucá

LIVING WATER INTERNATIONAL

Save the Children

Cruz Roja Hondureña

Misiones del Agua INTERNACIONAL

ASOMAINCUPACO — El Agua Manantial de Vida...

Sector Gubernamental

CONASA — Consejo Nacional de Agua Potable y Saneamiento

Sanaa — El Agua... Un Derecho Humano — Servicio Autónomo Nacional de Acueductos y Alcantarillados.

ENTE REGULADOR DE LOS SERVICIOS DE AGUA POTABLE Y SANEAMIENTO — ERSAPS