



Module 3



Sanitation Provider Enterprises'
Commercial Management
Series



Sale of new Connections











Sanitation Provider Enterprises' Commercial Management Series Module 03

Sale of New Connections

Acknowledgments

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Drinking Water and Sanitation Program

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Drinking Water and Sanitation Program

Preface

Most Peruvian sanitation provider utilities (EPSs) face serious financial constraints preventing them from growing their business and delivering high quality services to users. Typically, revenues do not cover their costs and even less their investments. This is accounted for by low collections the reasons for which can be grouped under two headings: a) low billing compared to actual consumption of drinking water and generally water use, and b) low bill collection.

To mitigate this problem, GTZ/PROAGUA have proposed a number of commercial management steps to increase EPSs collections without making significantly large investments. These measures have been validated during implementation at EPSEL S.A. Lambayeque.

We trust that these measures will be useful for analysis, adaptation and implementation by other EPSs in the country, together with the NGDO Cooperación Técnica Cultural y Ambiental Brüning (COTEC), we have developed a series of handbooks called "Commercial Management Series" where we broadly describe important aspects, procedures and impacts of proposed measures.

Lic. Michael Rosenauer

Drinking Water and Sanitation Program Director. GTZ/PROAGUA

Introduction

Most Sanitation Service Supply Companies in the country have low drinking water and sanitation client coverage. This means that many households within the urban area lack a water or sewerage connection.

This is due partly to the inexistence of service networks in some sectors. In spite of the fact there is technical feasibility, these expansion works imply strong investments and due to lack of financial capacity, they are very difficult to carry out for the EPS.

However, a considerable percentage of property lack services even if they have a water or sewerage network facing their lot and their incorporation to the company business does not require large investments or long execution terms, because the work consists only in a standard household connection.

This handbook, "Sale of New Connections", makes part of the handbook series called Commercial Management Series and proposes strategies to incorporate new users to the EPS, focusing identified properties as feasible and applying door-to-door sale of services, which will permit to significantly increase the company's billing. This manual has been prepared based upon experiences developed at the Lambayeque EPSEL S.A.

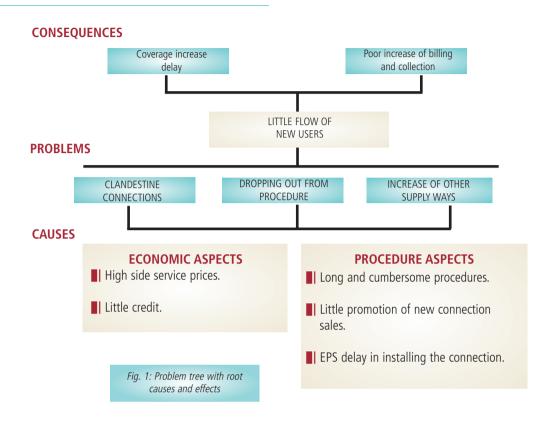


1

The issue

1.1. The global issue

- (1) In the Drinking Water and Sanitation companies of Peru there is a common practice that brings problems to sanitation service supply: **Informal Plumbers** surround the EPS offices and offer drinking water and sanitation household connections.
- (2) This peddling competition to the company could be considered as the main cause for clandestine connection increase. However, it is not so, since these informal plumbers respond to a **market demand**. Hence, the true problem is caused inside the EPS. We can identify the following causes:



(3) Undoubtedly, the aforementioned economic and procedural aspects generate disappointment among users and lead them to make the decision of dropping out from the procedures and installing a clandestine **connection** or another form of service outside EPS records.



Fig. 2: A clandestine sewerage connection discovered while being made

(4) We now give some detail for some of these causes of disappointment and for dropping out from formal procedures.

1.2. Side service cost

High prices

- (5) The first inconvenience users find when approaching the EPS to request an installation of household connection is the **high amount** they must pay to get a formal connection.
- (6) For example, the price at EPSEL S.A. Lambayeque for installing an average new drinking water connection (6 meters) is 282.86 Nuevos Soles and a six-meter sewerage connection costs 363.16 Nuevos Soles. Besides, these prices **do not include** the necessary materials for the connection or the breaking and repair of pavements and sidewalks if necessary.
- (7) Prices for these side services are calculated at each EPS. Proposals have to be evaluated and approved by the National Sanitation Service Superintendence (SUNASS). These side service prices have to be **justified** by the cost for the EPS and should not exceed SUNASS established limits.
- (8) EPSs usually calculate prices **much above** true costs. For example, they include high labor and equipment or transportation costs which are not actually used. The EPS calculates its costs considering that the connections made on a daily basis are geographically very scattered. This is why a low yield per connection is estimated.
- (9) Besides, and in spite of this, we have estimated that generally prices EPSs charge users account for 150% to 200% of the actual cost for the EPS. Supposedly this sanitation company policy aims at taking advantage of SUNASS caps and generating additional revenues, but in the end it goes **against** EPS goals.
- (10) These high costs make users automatically look for **an alternative** in the informal sector to get their connection installed at a moderate cost. At the same time, they profit from the benefit of not being recorded at the EPS as active users and hence they do not pay their monthly tariff.

What items are calculated within the cost of the Household Connection Installation Side Service?

(11) Side services imply costs and investments by the EPS, but they generate the necessary infrastructural conditions to be able to supply their drinking water and sanitation services. The household connection **installation cost**, as part of the side service, is directly charged to the benefited user. Each EPS calculates this cost according to an individual structure, as established and approved by the National Sanitation Service Superintendence.

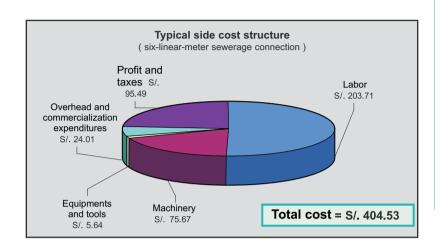


Fig. 3: Typical side cost structure per sewerage connection (example for 6 linear meters)

- (12) The cost structure is broken into the following items:
- **Labor:** Man hour quantity and price are defined per type of work. The EPS usually considers an excessive amount of man hours and also calculates prices very much above those it actually pays the personnel.
- Machinery: Hours and price for the use of machinery are calculated. For example, the use of a pickup truck, a mixer and a compactor. In most household connection installations these machines are not used, but they are included in the quotations offered to users.
- **Tools:** Quantity, time and price for each type of tool is defined according to their use and different types of work (picks, shovels, pliers, wrenches, spanners, etc.)
- **Overhead:** Times and prices for administrative procedures when processing a new connection which, in many cases, do not correspond to company facts.

1.3. Lack of credit

Deficient facilities

- (13) Together with high prices, the EPS demands complete advanced payment or a very high down payment to have the household connection installed. In this way, the typical problems with money availability in Peruvian households are not taken into account and the EPS formal procedure simply becomes unaffordable for families.
- (14) Some EPSs are very rigid in applying installments in what regards their number and the down payment amount.
- (15) Similarly, there are EPSs which **do not finance** materials for the connections. The user has to assume this cost at the beginning of the procedure or directly buy them.
- (16) All these obstacles impact the intention of formally obtaining a new connection, or cause delay in its respective installation. The user acquires the materials little by little and slowly gathers the necessary funds for the EPS down payment: this situation altogether delays **the increase** of EPS coverage.

1.4. Traditional procedure for a new connection

(17) High costs are not the only cause that prevents or makes it difficult to obtain a new sanitation service connection. Another recurrent problem at the EPS is that users who require a new domicile connection must undergo a long procedure made up by several sequential stages which imply repeated visits to the EPS, as an average more than **five**.



Fig. 4: Client pursuing a procedure at the EPS.

Long Procedures

- (18) Procedures start when users approaches the company to enquire about the procedure and they end when their connection is installed. It is even more complicated if a company does not have the necessary logistic capacity to offer **good client service**, that is, provide necessary guidance and information to clients. Also, at several procedural stages, the company has the client transport the file or part of it between different EPS offices.
- (19) The lack of knowledge users have concerning procedure details (sometimes fostered due to the scarcity of information provided by the EPS) frequently causes client mistakes or inaccuracy in the documentation or requirement sequence, which obliges them to correct these mistakes, thus increasing the **number of visits** to the EPS.

What are the procedures to apply for a new connection?

User's first visit to the

Step 1: Stakeholder enquiry

(20) **The stakeholder** goes to the company's office to request information and is given a list of requirements.

User's second visit to the EPS

Step 2: Enter file

- (21) The applicant **user** must submit the EPS a complete file containing:
- An application for a new drinking water and/or sanitary household connection addressed to the EPS Commercial Manager.
- A legalized copy of the Property Title/ Public Deed/Purchase Contract or any document certifying property ownership.
- One copy of the applicant's Identity Document.
- The property location diagram detailing names of neighboring streets and distance from the property to the closest corner.
- The proof of payment for the right to inspection (water and/or sanitation).
- Municipal plate certification.
- A report on the amount due.
- (22) If users forget any of these documents, they must get them and go back to the EPS.

Step 3: Inspection

- (23) The cadastre **inspector** verifies in the field the feasibility and the following parameters for calculating the requested connection:
- If there is a matrix network or collector.
- The distance to the network or the collector.
- The inspection box depth.
- If there is a sidewalk.
- If there is pavement.

User's third visit to

(24) In case there is a pavement, sidewalk or curb, the client has to go to the EPS once again to pick up an application form and thus request a **municipality** permit to break the pavement and sidewalk. It requires payment for the right to break which varies according to different jurisdictions.

Step 4: Budget preparation and list of materials

- (25) The **salesperson**/regularization agent prepares the inspection scope and the budget to be given to the client. The following is considered.
- The price of direct and indirect works related with the requested connection.
- The cost of necessary machinery and tools for the installation.
- In case the pavement or sidewalk needs to be broken and according to the kind of pavement, an additional amount is added per each linear meter that covers all the additionally generat ed costs.
- The list of materials needed for the installation (without prices).

Step 5: Payment by the user

(26) At the teller and without any detail, the user is informed about the total amount to pay. Before being able to pay and only in case it corresponds, the requesting user has to submit the EPS the sidewalk and pavement breaking municipality permit the. In case **users** do not have enough money at the time of the visit, they will go back once again to the company to make the payment. Besides, the materials have to be directly acquired by the applicant user.

the EPS

Step 6: List of materials submission, contract signing

User's fifth visit to the EPS (27) Only after users have paid at the teller, the EPS gives them the detailed budget and the list of materials to be bought. The user is not told where to get those materials or how much they approximately cost. Then, the drinking water and/or sanitation supply **contract** is signed.

Step 7: Work programming and execution

User's sixth visit to the FPS

(28) When users have bought all the materials in the list, they so confirm through a call or one more visit to the EPS.



Fig. 5: Users face long queuing at each visit to the client service center.

1.5 Delay in connection installation

- (29) Once all the requirements are complied with, the application is approved and the required payments are made, clients have the expectation of getting their connection immediately and thus finally be able to use the services they are hiring. Unfortunately, many EPSs need **several days** to schedule and execute the connection installation, something which causes additional malaise among users.
- (30) The delay is mainly due to the fact that the number of incorporation contracts signed by EPS and new users very much exceeds its **operational capacity** to execute drinking water or sanitation household connections.
- (31) In some companies the problem might not arise. However in other EPSs it is a cause of disappointment among new users, which is an **unfavorable** circumstance to start a client/company commercial relationship.
- (32) In comparison with permanent promotion, specific campaigns demand a lot of operational capacity to execute connections in a short term, while the rest of the year the demand is still low, causing a **loss of resources** because the personnel are permanently assigned to this area.

1.6 New connections market

Lack of promotion

Lack of promotion

(33) Another deficiency is detected in the lack of EPS continues promotion to encourage and **permanently** convoke the homes that show feasible connection potential to connect to the company's network. This is how they would be incorporated among the beneficiaries and payers. EPS activity in this regard is usually limited to informing users who approach the company offices in search of information about connections.

(34) Generally, **deficient information** does not allow clients to know what established conditions and procedures apply to the procedure for a new connection. Many stakeholders even receive wrong information through parties that causes reluctance about starting the procedures.



Fig. 6: The home of a low income family in the city

(35) In some occasions, informal plumbers capitalize this lack of information, convincing users to connect to EPS public networks and become **clandestine** users, at a low installation cost and with zero procedures.

(36) Thus EPSs neglect their potential market, that is, the new users they could be able to attract. As well as other companies, an EPS aims at selling its products: in this case the drinking water supply and waste water collection services. A household connection is a **means** and a **requirement** for this service sale to be viable. In spite of the fact that the EPS is a monopolistic company, it should acknowledge each market segment according to its social and economic conditions and especially those families who cannot access its services due to their low income levels.

What is the commercial market for the new connections?

- (37) The market the EPS can immediately incorporate for new drinking water and sanitation household connections is made up by **immediately feasible users** of these services. This means properties or inhabited houses that already have drinking water and/or sewerage networks facing their domicile.
- (38) The **future feasible** market is made up by uninhabited houses or non-built land lots, because the need for the services is still not generated there.
- (39) Obviously, to identify both immediate and future feasible markets in all the area, it is necessary for the EPS to have an **updated and computerized cadastre**. The transparency of this cadastre will permit to schedule tasks and design strategies.

1.7 Problem generation

- (40) The mentioned causes make users considerer that the efforts the company requires from them are excessive, as much in time and money as in legal documentation. Thus, in many cases they **abandon** their intentions of requesting drinking water or sanitation connection from the company and, hence, there is a low flow of new users.
- (41) However, these users also need to have drinking water and sanitation services because it is a **basic and vital need**. This situation leads them to try a clandestine alternative, which is always offered them at the same time.
- (42) Most of these users will be served by informal plumbers who stand in front of the EPS commercial offices where they find disgruntled, impatient and upset users to offer them their clandestine installation service at low cost and with no monthly tariff. These connections are not supervised by the company and are so done mainly with **low quality** materials and oftentimes not technically, which produces leaks, deterioration and network infiltrations.

The problem



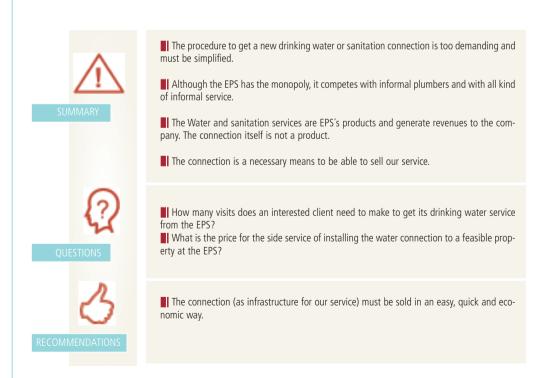
Fig. 7: Informal plumbers offering their services in front of the EPS.

- (43) The families who cannot request their water connection because of EPS obstacles have even other alternatives:
- Buying from tricycles.
- Lending or buying from neighbors in buckets or through a hose.
- Public fountains, in case there are any, or other supply sources which quality is not guaranteed and **risk the population's health**.
- (44) In a nutshell, the little flow of new users is due to reasons that correspond to EPS internal factors. Users have no service, but they need it and decide for clandestine connections or other supply forms which are **undesirable** for the EPS.

What are the direct consequences?

Direct consequences

- (45) Due to these factors, many EPSs show a **delay** in the growth of their drinking water or sanitation service coverage. This fact is mostly evidenced in the large percentage of households that have network coverage but lack household connections.
- (46) Another most sensitive consequence is that potential users are not incorporated and thus, do not contribute to EPS billing. Therefore a significant increase in economic revenues from service supply **is not taken advantage of.**





2

Incorporation of New Users

2.1. The proposed solution

- (47) Based upon the immediate feasible user list as mentioned in the former chapter, the following proposal is developed **to organize and force** the incorporation of new users to the drinking water and/or sanitation services.
- (48) A decided and dynamic intervention in the feasible user market is proposed. It seeks maximum incorporation of new users.
- (49) **Basic obstacles** for the incorporation are high cost, lack of credit and the time needed for the procedure. Therefore, it is necessary to reduce new connection prices -approaching them to actual EPS cost- and offer users the possibility of paying in installments. Besides, the number of visits and partial procedures by applicants should be decreased, helping them to prepare their application file in their own home.

Drinking Water and Sanitation Program

(50) The EPS must hire personnel exclusively devoted to selling services. The so called **Service Vendors** will be in charge of visiting identified immediate users to offer them connection services to the public drinking water or sanitation network and undertake the necessary procedures at the users' homes.

Measure 1: Side cost reduction.

Measure 2: Door-to-door sale of services.

What is necessary to implement these measures?

- (51) So measure implementation is feasible, the following prior steps need to be taken.
- Determining actual and fair side service costs.

Requirements

- Determining installment modality for the side service.
- Identification of Feasible Users.
- Procedure design.

2.2. Side service prices

- (52) The price users need to pay for new connections is one of the main obstacles for their incorporation to the EPS. Therefore prices should be **justified and adjusted** to their actual cost.
- (53) When quoting new connection prices, the EPS estimates costs that are very much above the efforts and resources it actually invests. Therefore, calculation should be done at **true costs** for the EPS so that the sale price for users gets reduced.
- (54) Selling connections should not be aimed at generating an economic surplus. It should be understood as the necessary condition for users to buy EPS's main products: POTABLE WATER AND SANITATION SERVICES. The EPS needs the connections to be able to sell its services. This is why it should only charge what is necessary for them to be installed.

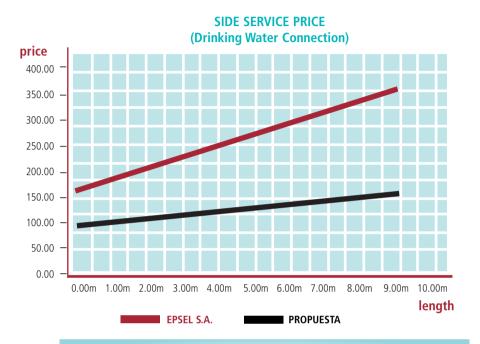


Fig. 8: It is estimated that prices for side services could be reduced by 45% (covering true costs).

- (55) Some reader might argue that the EPS will lose the revenues that it used to get by adjusting side service prices and that this measure would harm the company's economy. However, this negative effect for the EPS is **fully compensated** by the increase of drinking water and sanitation services billing due to the new users that would become incorporated, being attracted by low costs.
- (56) **Annex N°1** compares two cash flows as an example for the EPS, considering on the one hand the current high cost scenario and a certain incorporation flow and, on the other hand, an expected scenario with actual costs and a projection of the increase of new user incorporations. It is mathematically demonstrated that if side prices are reduced to users, in a few months the positive effect overcomes the negative one reverting the EPS cash flow to positive.

2.3. Payment in installments

- (57) A hurdle that is even higher than the EPS side service price is the obligation of paying the entire amount **in one payment**. In Peru there are only few families who are able to gather money as savings.
- (58) The EPS wants to resolve this cause of desertion by many feasible users. Hence, it has to take a risk and divide payment in **manageable and affordable installments**. Then, we suggest that the price for installing the household connection be charged in installments according to the client's preference and economic capacity.



the other installments.

- (59) Since it is a **financial service**, paying in installments necessarily means that the company will additionally charge users who will use this credit an interest rate and an amount for default risk. The maximum term proposed is 12 months to guarantee control and, at the same time, make it affordable for stakeholders.
- (60) Before starting the household connection sales program, the **EPS should accommodate** its internal provisions and mechanisms to be able to approve and monitor different contracts which are paid by credit.

2.4 Feasible user identification

- (61) As it has already been mentioned, in order to start a massive attraction and information campaign with new clients, it is necessary to identify the households or properties that can feasibly get connected. These lots are identified in the cadastre. They have the respective network in front of them and **have not yet been recorded** as service users.
- (62) Lists should be prepared with the results of identifying feasible. They should provide the following information:

- User cadastre code, name and addresses.
- Feasible service identification: only water, only sanitation or both services.
- I Services the user already has and corresponding status (active or inactive)
- Users' account status with the EPS (in case they are using some service).
- (63) These lists must be **ordered** according to cadastre code and separated by zones or sectors, which will facilitate distribution and activity follow-up.
- (64) Drinking Water and sanitation service feasibility depends on the fact that the property **is inhabited.** While a lot has no user to receive the service and pay for it, EPS vendors cannot serve it and it will be recorded as *Future Feasible User*.
- (65) In most cases, the property is inhabited and then it will be recorded as Immediately Feasible User. If no difference is made between these two cases, **time** will be **lost** due to unfruitful visits. Necessary time and resources can be planned according to the number of immediately feasible users.

Fitted out property = immediately feasible Not fitted out property = future feasible

N°	Cadastre code	Name	Address	User type	Status	Debt	Feasibility type
1	1.01.121.200.0	Juan Alberto Vargas	Av. Asunción 423	2	1	0	3
2	1.01.130.015.0	José Luis Fernández	C. Grau 1212	0	0	0	1
3	1.01.132.025.0	Teodoro Carranza	Jr. Junín 145	3	2	125	2
J		Last America Hadislas	A., I.a. may 921	0	0	0	2
4	1.02.012.550.0	José Antonio Urdiales	Av. La mar 821	0	0	0	3

Fig. 10: Example of feasible client list with respective characteristics.

(66) This feasible client list example shows the suggested criteria.

The user type column includes three options:

- o (not a user),
- 2 (water service user) and
- **3** (sanitation service user).

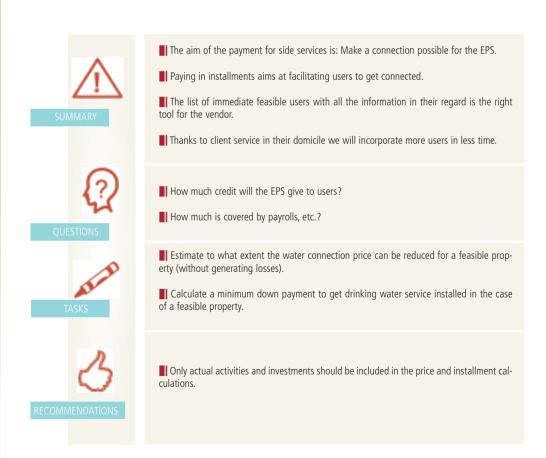
The State has three options:

- 1 (active),
- 2 (inactive) and
- o (not applicable).
- (67) The Debt column reports the amount the user owes the company (in nuevos soles).

Feasibility type includes 3 options:

- 1 (feasible for water and sanitation),
- 2 (feasible for water).
- **3** (feasible just for sanitation).

(68) All this information is very useful for the field work, since the personnel can know each user's situation before visiting him/her. Using this information will be a means to convince users to make their connection.





3

Preparations for intervention

(69) This phase aims at planning every aspect related with implementing the sale of EPS service connections. Preliminary preparations are:

- Preparing the *vendor file*.
- I Studying the Service Vendor contract modality.
- Calculating the amount of personnel to be used.
- Distributing the *feasible user portfolio*.
- Selecting and training service vendors.

3.1. The service vendor file

- (70) The first requirement of the service vendor when visiting immediately feasible properties is the sale file, prepared to process each user's file in the field.
- (71) This file must contain all the necessary documents to prepare the application so that a new household can connect to the EPS. The entire file can be filled in at the user's home, making user visits to the company unnecessary.
- (72) The documents suggested for the file are:
- **1** An application form addressed to the EPS Commercial Manager requesting drinking water and/or sanitation household connection.
- **2** The property location diagram form, where neighboring street names and the distance to the closest corner to the property will be detailed.
- **3** The official letter addressed to the municipality by the EPS requesting permit to break and repair sidewalks -only if there are pavements, sidewalks and curbs-.
- **4** The drinking water and/or sanitation household connection price table according to each case lengths and depths for the vendor to be able to quote.

In this case, the user must visit the municipality to pay the amount corresponding to said permit.

- **5** The budget format.
- **6** The table to divide the quoted amount in installments.
- **7** Agreement on paying in installments. The down payment includes opening right, as well as inspection payment and vendor remuneration.
- 8 The drinking water and/or sanitation supply contract form.
- **9** The list of household connection materials the user needs to buy.

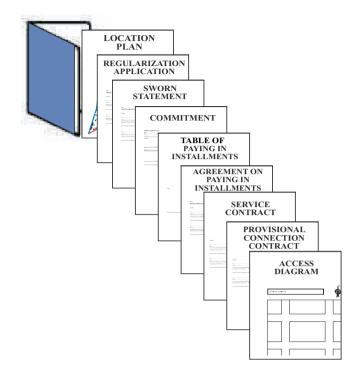


Fig. 11: Documents that make up the vendor's file.

- (73) The only user's additional documents the vendor has to attach to the file are:
- A legalized copy of the property title/public deed/purchase contract or any other document certifying property ownership.
- A copy of the applicant's identity document (Libreta Electoral or DNI).
- Municipal plate certification.
- A report on the amount due.
- (74) **Annex N° 2** shows an example of a vendor's file with said documents.

3.2 Service vendor contract

- (75) This is a critical point. It has been shown that a peddler, whose efforts directly impact his/her earnings, attracts many more clients and works **more energetically** and in a more dedicated way than another employee with a fixed remuneration.
- (76) A valid example, although it does not have to do with sanitation, is the door-to-door sale of insurance, credits, books and cosmetic products or household appliances. In these cases, sales representatives are only paid according to their yield. A percentage per sold product or service is assigned to them. This is how the companies prevent the risk of **paying without earning** and how sales representatives' remuneration directly depends on what they sell. Sales have to be monitored to calculate the sales agents' salary, evaluate yield and eventually decide on personnel selection.
- (77) According to these evidences, we suggest EPS sanitation service vendors should be hired under the service contract modality so that an amount is fixed **per each** water or sanitation **connection** sold on behalf of the company.
- (78) Payment for each sold connection should be carefully calculated, considering the **attainable monthly salary**. A commission that is too low will mean a very low vendor monthly income even if they have a good yield. This can discourage them about continuing with the job.
- (79) Even if it is a contract by commission, the type of monthly **minimum yield** should be specified so that vendors always try to attain the maximum possible yield.
- (80) Annex N° 3 shows a service contract specimen between the EPS and the service vendor.

3.3. Calculating the amount of personnel

- (81) How many service vendors should we start to work with? Each EPS will individually define it. In spite of the fact that adjustments can always be made, the company can plan the number of vendors based upon a realistic calculation the immediately feasible **user total** identified in their area, considering the following two criteria:
- Each service vendor should have a sufficient number of immediately feasible users to be able to reach acceptable monthly revenue (around 500.000 nuevos soles).
- The EPS should be interested in attracting new users as soon as possible to increase billings.
- (82) The first criterion considers the vendors' motivation. In case of no **satisfactory** incentive they will be more prone to get involved in corruption. We must not forget that many feasible clients may already have clandestine connections.

- (83) The second criterion can go against the first one because using **too many vendors** in very small areas will prevent them from achieving a good salary or from keeping a job for several months.
- (84) Both are likely aspects. This is why a balance is sought between participants' interests. Depending on the reward per sold connection, the amount of immediately feasible users in charge of a vendor should be enough to achieve at least a monthly income of around 500 nuevos soles. Besides, the vendor has to visit and serve the whole portfolio that he/she will receive in a maximum term of **three months**.

Reward per sold connec- tion	Successful sale average per EPS feasible client	Minimum esti- mated salary	Quantity of feasible clients per vendor	Total feasible clients in the EPS area	Total ven- dors to be hired
А	В	C	D	E	F
5	70%	500	143	5000	35
5	90%	500	111	5000	45
D = C/(AxB) F = E/D					

Fig. 12: Two examples of feasible client calculation per vendor including number of EPS vendors

- (85) Feasible properties are usually **sparsely located** close to and in the midst of lots with recorded services. This is why visit routes are lengthened. Perhaps vendors need to go back several times to find the property owner, who is the only one who can enter into the procedure with the vendor.
- (86) Taking this into account, it is estimated that a service vendor can visit an average of **fifteen** (15) users per day. At a first stage, the EPS should have sufficient vendors to be able to visit every immediately feasible user in four or less months.
- (87) At this first stage, the EPS needs to achieve incorporation of a good percentage of users while at the same time it needs to verify the initial list, marking users who have not been incorporated but who have a **greater possibility** of doing so in the near future. In this way, the EPS can organize a second prioritized visit phase.
- (88) It is estimated that a service vendor can, in normal conditions and with a sufficiently large client portfolio, place around **fifty (50) connections** per month.

3.4 Personnel selection

- (89) When the EPS has already **defined the number** of service vendors it requires and the portfolio to be assigned to each one of them, it can start selecting appropriate personnel for these positions.
- (90) So that those who have been selected give good results, you need to be careful in approving them. Only **sufficient** capacity and **experience** will permit them to entirely comply with program targets.



Fig. 13: Possible candidate for the position.

(91) To find valid candidates, **publicity announcements** can be made at EPS client

s e r v i c e modules or tellers, as well as at institutions and compa-

Ads should be exhibited for at least two weeks, preferably during the busiest fortnight.

nies that work on product sales or door-to-door service sales. At the same time, recommendations can be asked from these institutions as well as references about former workers.

- (92) The door-to-door sales work is quite popular in Peru and is characterized by high personnel turnover, so that there should not be many obstacles in finding a good group of interested and capable people.
- (93) An important requirement is to have a peddler's profile with experience in the sanitation sector, but that is rarely found. This is why it is not an indispensable requirement. We propose the following:

Distanting

Requirements		Autification	Verification modulity	
1	Bread experience in doctor- to-coor scient (nome appliances, income sos, busics, etc.)	This is the call objective.	Vedfied CV and percental laterylaws	
2	Se bosed and efficient	This guarantees success and previous problems. with clients.	Call former are players	
2	An al lable it me	This is usually a full time iob	Percenal interview	
4	Cerrect expression and guad appearance.	Do being in direct contact with clients, he/she represents the EPG IMAGE.	Petranal interview	
e	Intervention zone type losceledge (sherry towns) human cetternests, etc.)	it is important to know the oftents and came byte because of security reasons.	Verified DV	
Т	Superiesce is the Sentetion Sector (tousehold or sneed only)	Although Est Indispensable, if Could be a training aid.		
	Having his or har own car	Facilitates field werk	Petranal Interview	

Fig. 14: Prioritized criteria to select personnel

(94) In the end, the department head decides. This is the person who will assume responsibility for the new connections sale program. It can be the commercial manager or the cadastre head or some other area head.

3.5. Vendor training

(95) The personnel selected for the door-to-door service sale must receive training before starting to work. This training should leverage the following **knowledge and abilities:**

- About the product: Technical characteristics of drinking water and sanitation household connections. Materials, costs and installation process.
- About the company: General company characteristics and offered services characteristics. Service deficiencies must be known to foresee user complaints.
- About the methodology: General and specific sale techniques for the case.
- About the procedure: Procedure designed by the EPS for the incorporation of new users: file preparation, forms, etc.
- SAbout the price: Sale conditions, including calculation scheme and costs for quoting the product and credits offered by the EPS.

(96) The EPS official who will be responsible for supervision and follow-up to service vendors must conduct this training. **Annex 4** shows a sample methodological script with a proposed training scheme.

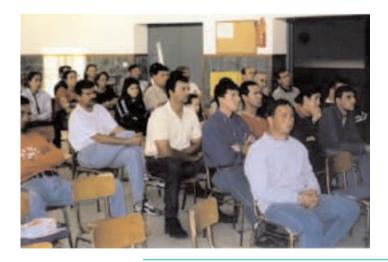
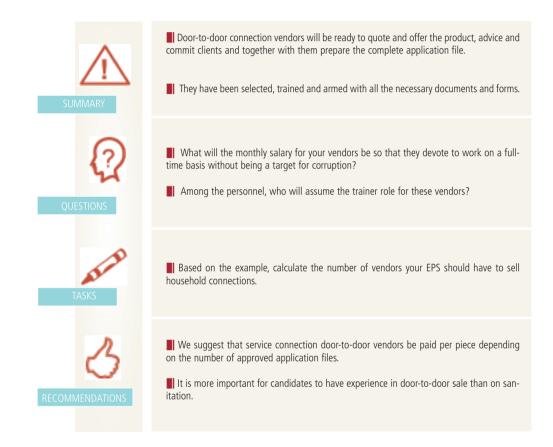
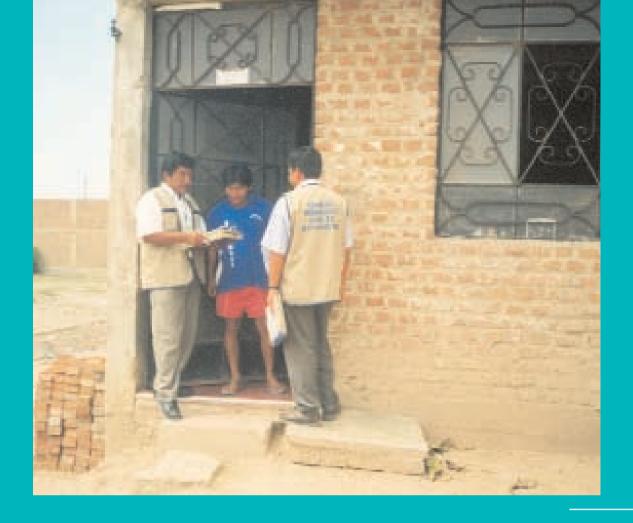


Fig. 15: Training for service vendors.

(97) At the end of training **a test** is recommended for two or three days with a few feasible users to evaluate vendor performance in the field and check the application of their knowledge and handling of the real situation.

(98) During the first work weeks, it will be important to repeat and remember what has been learnt, guiding and answering to questions and doubts of new connection vendors for sanitation services.





4

Door-to- door Sale of Connections

(99) The general idea of this procedure is that EPS goes out to seek feasible users in their own homes to offer them connection to its networks. This procedure has **several phases** which are detailed as follows:

4.1. List delivery

(100) The list of immediately feasible users that connection vendors get from the EPS has been **refined at the office**. It contains the following data on users:

- Cadastre code (in case there is any)
- Exact address
- Owner's name
- Type of service the user is lacking
- Current status of his/her connections (in case there are any)
- Debt with the EPS (in case there is any)

(101) Such list must be accompanied by sector lot **maps** for the vendor, preferably with cadastre information to facilitate identification of lots to visit. Specific lots to be visited should be highlighted on the map with a specific color or symbol.

Concerning the list format and its reading, please review file 2.4.

(102) The quality of maps varies depending on the user cadastre status at each EPS. The more specific the information the **quicker** and more accurate the connection vendor work will be.

4.2. Visit to domiciles

(103) The connection vendor visits the user to offer him/her the installation of drinking water and/or sewerage household connections. These are the **steps to take** during the visit:

Check feasibility:

■ Check if there is really a water matrix network or sewerage collector facing the lot and if the distance to it is appropriate.

Present the product:

- Sensitize the user about his/her deficiencies and unsatisfied needs in connection with sanitation services.
- Offer him/her the solution through a household connection with all its benefits: hygiene, health, comfort, clean conscience, service safety, and prestige and house value.

Present the price:

- Quote the price for the installation, justifying user costs with EPS costs, making it clear that there will be no surpluses for the EPS.
- **I**I Explain the credit offered by the EPS because it acknowledges user problems.
- Fix a realistic down payment and negotiate an amount and term for the other installments to be paid.
- Ompare the price with alternative costs of living without the use of water or living with an illegal service.
- Clarify that users will additionally have to pay for the materials

f at a certain point vendors have doubts about the technical feasibility of the connection they are selling, they must check with their boss pefore following the procedure with

Present sale conditions:

- Explain the user EPS requirements to approve and install the connection, documents, information, permits (pavements and sidewalks), material procurement, etc.
- I Highlight that procedures are done at home and that users will have to go to the EPS offices only to pay.



Fig. 16: EPS vendors at work.

E Start the procedure:

- Have the user sign the new connection purchase commitment.
- Leave with the user the application file and a certificate about the purchase conditions as agreed.
- AGo ahead with filling in the forms and collecting documents immediately to the extent possible.
- Programar en acuerdo mutuo la siguiente visita (en caso que sea necesario).

(104) The final visit objective will be to convince feasible users to request EPS installation of drinking water and/or sanitation service. In many cases this favorable decision will not be reached in the first visit. This is why vendors will visit them again until they get their commitment.

(105) In case there are several unfruitful visits, the vendor must note down what are the inconveniences that have prevented success and **estimate a term** in which the feasible user will be probably ready to make a deal. This information will be useful to schedule some follow-up in the future.

(106) To appropriately serve users, vendors take with them the respective cadastre map and the complete sale file so **no form** or document **is lacking** during their visit to immediately feasible users and they can prepare the application file in the field. Thus, there will be no delay or opportunities lost by the EPS.

4.3. Application file preparation

(107) When clients are convinced and want to apply for a new household connection for one or both services, vendors will **help** them to prepare their application file.

- (108) Users fill in the application form and based vendors help them complete all the documents that make up the file (see also section 3.1). Likewise, the vendor will help prepare the necessary diagram to locate the connection.
- (109) Service vendors will **calculate the** individual **budget** for the household connection, according to the conditions they find (for example the necessary pipe length) based upon the price table approved by the EPS. The result is transcribed to the budget form that makes part of the application file. Users will receive a sample for their control.
- (110) In case users wants to take advantage of credit, be it because they so prefer or because they lack the money, the installment agreement form will be used. It will contain the down payment and installment amounts. The document will be **signed by both parties**. The offer will agree to the installment table guidelines that vendors will carry in their file.
- (111) The necessary construction materials for the requested connection are not usually included in the budget. The vendor will provide the applicant with the list of materials, a form included in the sale file that refers to the type and quantity of **materials to be bought**, as well as at referential prices. The user will have to buy them and let the EPS know when everything is complete and ready for the job.
- (112) The documents **the** applicant **user submits** to complete the application file are the following:
- A copy of the applicant's identity document (Libreta Electoral or DNI).
- Municipal plate certification
- A legalized copy of the property title / deed / purchase contract or any document certifying property.
- (113) In case pavements and sidewalks need to be broken to install the connection, the EPS has to have the respective **municipal permit**. The task of getting it is left to the user who is given an official letter (which also makes part of the vendor's file). In this case, the user will have to go to the municipality and pay the corresponding amount to get the mentioned permit.
- (114) Once completed, the file will be submitted through the vendor to the EPS for its revision and approval. This approval will in turn be communicated to the user also **through the vendor**.



Fig. 17: The vendor helps the user to assemble the application file.

4.4. Connection scheduling and execution

(116) Once the service contract is signed and the payment has been made, the EPS is ready to execute the connection. In case the user has to buy the building material or when the municipal permit is needed for breaking pavements and sidewalks, these should be done before the company starts works. When users confirm -either personally or through a phone call-, the EPS that they have bought all the materials and that they have the municipal permit, the company will let them know what is the scheduled day for installing the household connection.



Fig. 18: A user pays her down payment at EPS offices

4.5. Connection scheduling and execution

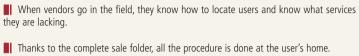
(116) Once the service **contract is signed** and the payment has been made, the EPS is ready to execute the connection. In case the user has to buy the building material or when the municipal permit is needed for breaking pavements and sidewalks, these should be done before the company starts works. When users confirm -either personally or through a phone call-, the EPS that they have bought all the materials and that they have the municipal permit, the company will let them know what is the scheduled day for installing the household connection.



Fig. 19: EPS personnel at work

(117) The procedure ends by the installation of the required connection. This work will be done by EPS specialized personnel under an inspector's supervision. This will guarantee the work is optimally performed. Once the new service is opened, it will be entered in the cadastre system and billing will be started, that is it will be included in the **invoice** for supplied services.





- An agreement on payment in installments is signed.
- An agreement on new service connection installation is signed.
- Does your EPS have users by the material needed for the connection or does it do it on
- How does it justify the price of its side services before the user?
- Prepare a sample sale folder.
- Draw a diagram for a sample connection.
- Transparently calculate the budget for installing a sample drinking water connection.
- The vendor must check the technical feasibility before getting into negotiations to prevent mistakes before the user.





5

The load of applicant users

5.1 The load of applicant users

(118) A problem discussed in chapter 1 is EPS incapacity to **cater for feasible applications** approved in a short time. This circumstance upsets users who made an effort to comply with all the requirements asked from them, even the down payment. In many companies, we have identified that the cause was a deficient operational capacity.

(119) An EPS usually has a fixed operational capacity (basically defined by the number of plumbers) to install a **certain number** of connections along the entire year. The amount of technicians employed to that end depends on the average of connections to be made.

- (120) However, connections demand **varies**. Therefore, on high demand weeks the personnel cannot respond to demand and when it is low the personnel has nothing to do. In the first case, the EPS does not comply with the contract it signed with the applicant user. In the second case, the EPS loses money because it pays for unproductive technicians.
- (121) To solve this conflict, companies look for the **necessary flexibility** among users and always schedule installation according to their operational capacity. The user will have to queue and wait his/her turn. The waiting list can be so long that it makes users impatient.
- (122) In some companies connection demand is always higher than operational capacity and the situation is never consolidated.
- (123) Even if there is a balance along the year between total requirements and EPS capacity, **delay times** in serving users will evidently be generated. Let us see an EPS that identifies three periods with different demand for new connections along the 12 months of the year:

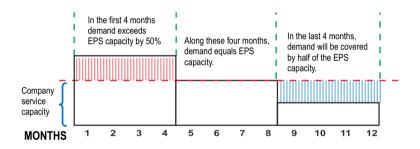


Fig. 20: Diagram of connections to be executed along twelve months.

- (124) Although it is true that at the end of the year all the connections are made without labor waste, during the year there are connection installation delays.
- (125) We now show a diagram with the evolution of delays according to our example along the year:

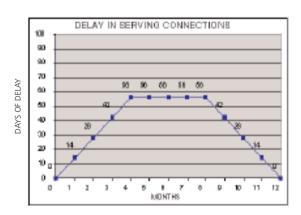


Fig. 21: Waiting time from scheduling to execution

(126) Our example is hypothetical. In real cases, demand does not vary per quarter but per week and even per day, which makes it more complex and almost unpredictable.

(127) The idea is to find a feasible way to serve clients on the spot without appealing to their patience and flexibility, while at the same time to prevent increasing personnel in an inefficient and economically irresponsible way.

Short but effective terms for installation can be informed to users at the moment of selling them their connection.

- (128) We will now discuss some strategies that have been successfully applied to handle the problem.
- (129) Company policy can be aimed at solving problems internally, that is, finding a feasible way with its own employees. To do so, we present two internal flexibilization strategies.
- (130) Other companies will seek to solve problems by total or partial side service outsourcing. To do so external and combined flexibilization strategies will be shown.

5.2. Internal flexibilization

Work current account

- (131) The work current account is a tool to respond to an irregular and variable demand. A total number of work days per year is agreed with each worker, which is lesser than a full time. In this way, a sufficient number of technicians will be available to cater for a maximum demand of connections to be executed in a reasonable time.
- (132) The EPS decides according to demand when it needs the manpower and when it is not necessary. The idea is that the days will be worked and paid along the year according to contract.
- (133) This strategy requires much flexibility from workers who, during high demand time will work in extended schedules and when demand is low in shorter schedules. If necessary, employees can be forced to take their vacations or to temporarily suspend them so that they can do a short term job.

Personnel internal exchange

(134) This proposal does not contradict the first one but it is a complement or an alternative to it. The idea is for the technical personnel in charge of household connections to develop **additional capacities** so that they can also be considered in other company sectors and areas when the demand in their area is low.

(135) This is how they can be sent to networks, well works, infrastructure maintenance or car fleet maintenance operations.

(136) At the same time, the personnel from other sectors should be trained to **temporarily support** new connections execution when there are peaks.

(137) The challenge is to provide additional training to the personnel and the accounting between areas when there are transfers and labor lending between EPS divisions. The advantage is the high flexibility gained by the company in different sectors without preventing workers from performing on a **full-time** basis.



Fig. 22: While technicians are not required by the connection area, they can perform in other sectors (repairs and emergencies).



5.3. Outsourcing

(138) After all, the EPS charges users a price for the side service of installing new connections. If this price covers all EPS expenditures in that regard, it is evidently convenient to hire **third parties to** execute the connections, as some companies in the country do.

(139) Theoretically, any EPS task can be outsourced, but some are better suited to outsourcing than others due to **technical** independence.

- It does not require too much coordination with the EPS and **financial** independence
- It generates own revenues which are directly linked to the work supply.

Outsourcing advantages

(140) When outsourcing a private entity, an **executor and supervisor** constellation is generated. The EPS is interested in getting the work done as best as possible because it is demanding the efforts of another party and not their efforts. Besides, they can sanction and fine. Outsourcing frees the EPS for many administrative and logistic tasks which are entirely charged to the outsourced party.

(141) Although an outsourced company aims at generating surplus and profit, prices for side services can drop thanks to the effect of **competitiveness** among those who want to get the contract.

(142) Flexibility to serve variable demand in a short term is required from the private company, so lacking or having too much personnel will not be EPS's problem anymore.

(143) An exact price can be fixed in the contract per type of installed connection. This makes planning secure, which did not occur before.

Contractor companies

(144) Generally, for an EPS that sells many connections per month, it is a good solution to have contractors to execute them. Established companies have some experience and technical, logistic and managerial soundness. Private parties also have to have sufficient personnel for high demand shifts, but it is easier with internal exchange and temporary worker increase. A good subcontractor will be ready to assume even any kind of unforeseen situation, guaranteeing **quick and satisfactory** service to our clients.

(145) Cost structure in the established companies is made up by direct and indirect costs. Manager and administrative personnel salaries are among these indirect costs as well as building costs, car costs, and machinery costs and so on. The sale of their products and services also has to cover these costs. There is a scale effect with the potential of reducing costs per service unit with each increase of sold units.

(146) Therefore, it is convenient for large EPSs that sell a significant number of new connections to hire a larger company. In case of EPSs that sell few connections, the price of the contracting company might be not very attractive for users and also for the EPS who will have to eventually co-finance installation.

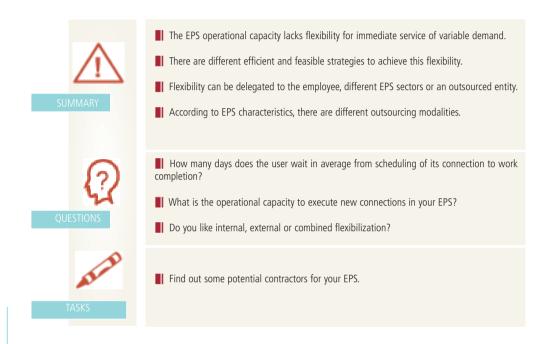
Individuals

- (147) Several EPSs, most of all large ones, outsource contractor companies. However, we consider that solution optimal for large service supply companies, but not necessarily for small EPS.
- (148) An alternative to outsource the execution of new connections lies in individuals who offer this kind of service: specialized and independent technicians or similar professionals.
- (149) For an EPS that needs a few new connections, constructing company quotations will have a higher price than individual contractors, because they directly take part on installing connections, which is part of their direct cost.
- (150) Besides, individual contractors, even at a lesser scale, have the capacity to increase their number of workers on a temporary basis to cater for high demand of new connections.
- (151) In summary, in the case of small drinking water companies, subcontracted individuals can be perfectly capable of managing and distributing their time and resources to serve our clients on a daily basis with quickness, efficiency and at very competitive costs.

5.4. Combined solutions

- (152) If the EPS **does not want to completely depend** on an outsourced company. If its objective is to keep a certain number of its own personnel to serve the demand of new connections, the following is recommended:
- (153) The EPS should become organized to a convenient degree concerning personnel flexible working account and internal exchange. The number of workers to this end should be limited so each one of them can achieve a total of work days and **satisfactory** annual salary.
- (154) At this level, the company itself can be in charge of **minimum and even average demand shifts**. Any additional demand is ensured through outsource of necessary support.
- (155) Depending on the number of connections to outsource and **case circumstances**, one can choose between a contractor company and one or several individuals. The contract can be global and calculated upon an annual number of connections or individually per each sold connection.

(156) This combination prevents problems with existing personnel, keeps operational capacity with the EPS and at the same time solves demand peaks in an **efficient and economic** way.





6

Seeking Cofinancing

6.1. Why does the EPS need financial support?

(157) Drinking Water and Sanitation Companies seek financial support for different objectives. Many infrastructure expansion works, personnel training, lab and machinery acquisition would not have been possible without **domestic and international** financial cooperation. Specific contributions of each user as provision of materials, unqualified labor or cash payment, is understood as co-financing.

(158) Concerning the installation of new domicile connections, it is well known that there is a social economic layer of the population who will not be in the capacity of contracting EPS services in spite of any facilities. This social economic group is more likely to use clandestine connections, because it lacks **affordable alternatives**.

(159) If the construction of new household connections is not affordable for the EPS even with user cooperation, it is necessary to find a strategic source that covers, if not all, at least the lacking balance in the budget to allow for the plan works or investment.

(160) Nevertheless, it is important to verify if at least paying the **monthly tariff** is affordable for them, if they comply with the minimum economic *feasibility*. This is important, because although infrastructure can be financed through other funds, continuous consumption of these benefited families cannot be subsidized.

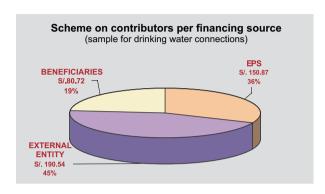


Fig. 23: Average contribution of EPSs, users and other entities for the construction of drinking water connections

- (161) Any distinction and special treatment has to be done **very carefully.** It is easy to get claims of justice, equity and envy because of any privileged treatment towards any group of people.
- (162) In the case of EPSEL S.A. in Chiclayo, external financial support represents an **important** role in expanding drinking water connections.
- (163) In conclusion, user contribution for their new connection can vary from 100% to 0%, although a minimum contribution is always recommended so users appropriate the works. What the user does not contribute with would have to be financed by other sources.

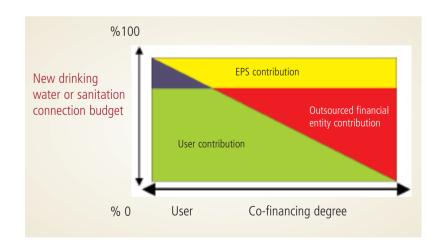


Fig. 24: Cost distribution of a new connection between users, EPS and third parties

164) EPS contribution is optional, but the contributing financial entity usually insists in a **counterpart**, including both the user and the drinking water company.

6.2. Steps to be followed

- (165) In the first place, the EPS must try as much as possible to have users -with or without company contribution, with or without payment in installments, with or without interest rate- find the way to pay the necessary minimum amount for the work.
- (166) It is necessary to **identify** EPS feasible users who have not been incorporated by service vendors yet, locating them by address or sector, which will allow to determine their total number, even per city zone. This piece of information reflects the potential of users that imply economic problems for the EPS.
- (167) These remaining feasible connections will be scattered all over the EPS jurisdiction in very variable densities.
- (168) To manage them and formulate projects to be submitted to financial entities it is necessary to **organize sectors** according to geographic aspects and number of corresponding connections.
- (169) A building project is prepared per sector at **profile level**. The promotion of works before the financial entities and in case of success the co-financing agreement can refer to one or several sectors or also to every identified case.
- (170) Having the profiles of feasible connections that need co-financing, the EPS must **look for and identify** financial entities that are potentially interested in solving the problem.
- (171) These identified financing sources must **be evaluated** more carefully to determine if it is feasible to submit a project. Therefore it is important to find out which are the intervention lines that will provide support, which are their financing modalities, what institutions are allowed to submit economic projects, what areas they work in, what their budgetary caps are, and what economic counterpart they require. This information can be collected by web portals, calls and direct meetings with officials.
- (172) It is necessary to have **get-together meetings** with entities identified as possible financing sources when their characteristics are evaluated to probe and know what are their interest in the project, available capacity and terms. In this way, we will be able to determine what institutions are worth submitting a project.
- (173) Oftentimes it is possible to combine support of two or several different entities and thus reduce user and EPS counterpart, as well as the fund requested from each one of the third party entities. Preferably, foreign funds should be **non reimbursable**.

(174) At the same time, the EPS will have to make an internal analysis of its possibilities to provide **matching funds** for projects of this kind. Matching funds do not always mean cash reimbursement, because installed capacity in terms of plant, equipment and personnel can be offered. However, besides this, it is recommended to consider the possibility of providing contributions such as the exemption of some payments for the connection (overhead, for example), as well as qualified labor and works technical management.

(175) Not only the financial support is worth, many institutions can assist more easily through loans of machinery or transportation and **direct donation** of materials.

6.3. Who can co-finance?

(176) Theoretically, any institution or organization whether state-owned or private, domestic or International can co-finance.

(177) In practice, the entity work **sphere** should coincide with the EPS work sphere to be able to become a likely financing source for the execution of household connections.

	DOMESTIC	INTERNATIONAL
GOVERNMENTAL	MUNICIPALITY REGION ATUR	KFW FIP USAID
PRIVATE	MI BANCO AGROFUTURO	CARE INTERVIDA ROTARY INTERNATIONAL

Fig. 25: Examples of financial entities

(178) Co-financing sources can be Peruvian government social support programs, regional governments, municipalities and even private domestic financial or micro-financial entities. Other possible sources are technical or financial foreign country cooperation programs, ENIEX (Foreign International Cooperation Entities and Institutions) and NGDOs (Non Governmental Development Organizations). These last three types of organizations are registered in the Peruvian International Cooperation Agency web site. http://www.apci.gob.pe.

(179) For example:

■ The A Trabajar Urbano program finances unqualified labor, part of the materials and technical management. The EPS could contribute with qualified labor and the population with the remaining materials.

■ The Municipalities and Regional Governments are always interested in improving the sanitation quality for their population and they can mostly contribute funds for construction materials for household connections.

6.4. How to prepare a project

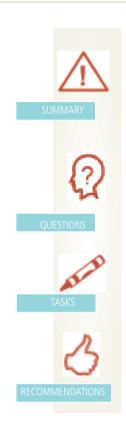
(180) When the EPS has defined the entities it would like to request financial support from, it must prepare the projects according to **individual requirements** of each one of them. The EPS is advised to complete and adapt one or several of the previously prepared profiles to present them as a single job with several connections and in a certain geographic extension. Generally, a base project can be previously prepared which can then be adapted to each financial entity conditions.

(181) To facilitate project preparation, we propose a problem tree specimen in **Annex N° 5** with its respective causes and effects as well as the resulting Logical Framework.

(182) In the case the EPS is not authorized or due to different reasons it is not available for the project preparation or direct submission, **strategic alliances** with interested institutions such as local Non Governmental Organizations, community associations or others are advisable.

(183) After having submitted a project to a collaborating entity, the EPS must **closely follow** the evaluation process to respond to enquiries, solve observations and contribute with additional data when necessary. Thanks to this follow-up, its approval will be quicker as the decision depends on its officials. In the case of public bids it is necessary to comply with the established schedule.

(184) **Annex N° 6** includes an international cooperation agreement specimen between an EPS and a financial entity.



- There are poor feasible users who cannot pay the price of a new connection.If they do not become included they become clandestine users, give a bad example and do not contribute with their monthly tariff.
- Any institution, organization or company with a coinciding subject matter and geographic area can be a co-financing entity.
- Were there household connection works co-financed by third parties in your EPS?
- What was the EPS's and the user's matching fund or contribution?
- What local entities might be potential collaborators?
- Prepare a mechanism to identify the social economic segment -whether in need or not-that can obtain its connection without external support.
- Develop a project profile as example of an EPS hypothetical sector.
- III Since the collaborating entity will insist in a matching fund or contribution by the EPS, the latter should insist in a matching fund or contribution by the user.
- Services, goods and machinery are also worth as third party collaboration.
- Support from several entities can be combined.

CONCLUSIONS

(185) The recommended procedure described in this manual will help the EPS to improve water and sanitation service coverage in areas that are already served with drinking water and/or sanitation networks.

(186) As it has been shown in this manual, no economic expenditures will be generated by such implementation because payment to service vendors will be made only after they have sold a new connection. This gives the advantage of implementing this procedure without running the risk of increasing sale costs without getting results.

(187) This mechanism can be permanently assumed by the EPS and not as a temporary campaign. It is convenient to include the procedure in the EPS Text of Administrative Procedures to regulate it and ensure its permanent use.

Annexes

ANNEX 1	Comparative Cash Flow between Current Situation and Proposed Scenario
ANNEX 2	Household Connections Sale Folder
ANNEX Z	Household Connections sale rolder
ANNEX 3	Service Vendor Contract Specimen
ANNEX 4	Methodological Script for Training Service Vendors
ANNEX 5	Logical Framework Model
ANNEX 6	Specimen of Interinstitutional Cooperation Agreement on
AININEA O	Specifien of interinstitutional Cooperation Agreement on
	Drinking Water and Sanitation Household Connection
ANEXO 7	Module Planning Form
	<u>.</u>

ANNEX N° 1 Comparative Cash Flow between Current Situation and Proposed Scenario

ASSUMPTIONS

For this sample calculation, EPSEL S.A. company current side costs have been taken into account and compared with proposed side service costs.

DESCRIPTION	WAT	ER	SEWE	RAGE		Side Cost Amount
	Price	N° Connection	Price	Nº Connecti	on	(S/.)
EPS current average revenue	263.49	14	340.19	9	9	6 750.63
EPS proposed average revenues	132.50	14	138.12	9	9	3 098.04
"EPS average loss" and user savings	131.00	14	202.07	9	9	3. 652.50

Water tariff: S/. 14.218 m3
Sewerage tariff: S/. 6.398 m3

The table shows a Current Cost example that EPSEL S.A. has for a 6" and 6 meter long sanitation connection and the Proposed Cost for a connection of the same characteristics.

The comparative cash flow below shows four scenarios with 2, 3, 4 and 5 vendors considering a yield of 25 water connections and 25 sanitation connections every month per vendor. The "loss" implied by the reduction of side costs is estimated. However, this is compensated with the revenues generated by the inclusion of new clients attracted by the vendors.

Evidently, with a larger number of vendors, recovery will be quicker than if there are fewer vendors.

: 6" Sewerage Connection Installation CURRENT COSTS Side Service **EPSEL S.A.**

Unit of Measure : S/. / Connection Depth : From 1.50 to 2.00 m : From 8.00 to 9.00 m Length

: The price does not include materials. It does not include breaking or repairing pavement, sidewalks and gardens either.

Note

ITEMS		Unit	Quantity	Unit Cost	Total Cost
1 DIRECT COST					285.025
1.1. LABOR			•		203.710
Foreman		h-h/con	0.960	9.430	9.053
Laborer		h-h/con	6.120	8.570	52.448
Bricklaver	(2.30 h-h/ml)	h-h	20.700	6.870	142.209
	RY AND EQUIPME	NT (Rent / De	preciation)	1	81.315
Machiner		<u> </u>	<u> </u>		75.674
	ruck 4x2	h-m	4.638	15.000	69.570
- Mixer		h-m	0.459	8.000	3.672
- Paveme	nt cutter	h-m	0.304	8.000	2.432
- Compac	tor	h-m	0.000	20.000	0.000
- Compres	ssor	h-m	0.282	0.000	0.000
Equipme	nts and Tools				5.641
Stilson s		h-m	11.060	0.250	2.765
Saw		h-m	11.060	0.020	0.221
Pick		h-m	11.060	0.020	0.221
Shovel		h-m	11.060	0.050	0.553
Chisel		h-m	11.060	0.010	0.111
Crowba	r	h-m	11.060	0.010	0.111
Burner		h-m	11.060	0.000	0.000
Wheelba	arrow	h-m	11.060	0.120	1.327
Polishin	g plate	h-m	11.060	0.030	0.332
2 OVERHEAD	<u> </u>				24.009
2.1. AD EXPENDITURES	MINSITRATIVE A	ND COMME	RCIALIZATION		24.009
Material					3.640
- Paper		miil	0.010	28.000	0.280
- Printing		mill	0.006	60.000	0.360
- Inputs		est	3.000	1.000	3.000
Personnel					18.469
- Specialist		h-h	0.830	9.430	7.827
- Auxiliary		h-h	0.660	10.750	7.095
- Warehous	se	h-h	0.330	10.750	3.548
Services, E	quipments and Lic	enses			1.900
- Premises		est	1.000	0.200	0.200
- IT Equipm	nent	est	1.000	0.700	0.700
Public Se	rvices	est	1.000	0.500	0.500
- Software		est	1.000	0.500	0.500
OPERATION CO	OST SUBTOTAL (1	+2)	•		309.034
3 PROFIT (10.00	% OF THE OPERAT	TION COST)			30.903
TOTAL WITHOU	T SALE TAX (1+2	2 + 3)			339.938
TOTAL					404.526

Side Service : 6" Sewerage Connection Installation PROPOSED COST

Unit of Measure : S/. / Connection

Depth : S/. / Connection

From 1.50 to 2.00 m

Length 6.00 m

Note : The price does not include materials. It does not include breaking or

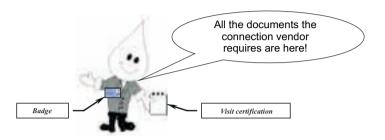
repairing pavement, sidewalks and gardens either.

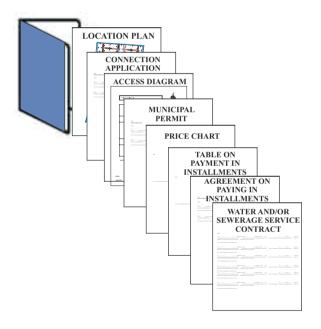
ITEMS	Unit		Quantity	Unit Cost	Total Cost
1 DIRECT COST					68.507
1.1. LABOR					62.867
Foreman		h-h/con	0.100	10.000	1.000
Labor		h-h/con	4.760	3.333	15.867
Bricklayer	(2.30 h-h/ml)	h-h	13.800	3.333	46.000
1.2. MACHINE	RY AND EQUIP	MENT (Rei	nt / Depreciati	on)	5.641
Machiner	у				0.000
- PICK UF	truck 4x2	h-m	0.000	15.000	0.000
- Mixer		h-m	0.000	8.000	0.000
- Paveme	nt cutter	h-m	0.000	8.000	0.000
- Compac	tor	h-m	0.000	20.000	0.000
- Compres	ssor	h-m	0.000	0.000	0.000
Equipme	nts and Tools				5.641
Stilson s	spanner	h-m	11.060	0.250	2.765
Saw		h-m	11.060	0.020	0.221
Pick		h-m	11.060	0.020	0.221
Shovel		h-m	11.060	0.050	0.553
Chisel		h-m	11.060	0.010	0.111
Crowbai	r	h-m	11.060	0.010	0.111
Burner		h-m	11.060	0.000	0.000
Wheelba	arrow	h-m	11.060	0.120	1.327
Polishin	g plate	h-m	11.060	0.030	0.332
2 OVERHEAD	5 F				24.009
2.1. ADMINIS	STRATIVE AND	COMMER	CIALIZATION		
Material					3.640
- Paper		miil	0.010	28.000	0.280
- Printing		mill	0.006	60.000	0.360
- Inputs		est	3.000	1.000	3.000
Personnel					18.469
- Specialist		h-h	0.830	9.430	7.827
- Auxiliary		h-h	0.660	10.750	7.095
- Warehous	e	h-h	0.330	10.750	3.548
Services, E	quipments and	Licenses			1.900
- Premises		est	1.000	0.200	0.200
- IT Equipm	ent	est	1.000	0.700	0.700
Public Ser	vices	est	1.000	0.500	0.500
- Software		est	1.000	0.500	0.500
OPERATION CO	OST SUBTOTAL	(1+2)			92.517
3 PROFIT (10.00	% OF THE OPER	RATION CO	ST)		9.252
TOTAL WITHOUT	SALES TAX (1	+2+3)			101.768
TOTAL					121.104

COMPARATIVE CASH FLOW

Assumptions	Heading						Mc	Month					
		1	2	က	4	5	9	7	89	6	10	11	12
	Loss	3 652.59	3 652.59	3 652.59	3 652.59	3 652.59	3 652.59	3 652.59	3 652.59	3 652.59	3 652.59	3 652.59	3 652.59
2 Vendors	Additional revenues (50 A / D)	1 030.81	2 061.63	3 092.44	4 123.25	5 154.07	6 184.88	7 215.70	8 246.51	9 277.32	10 308.14	11 338.95	12 369.76
(25 A / D each one)	Accrued balance (50 A / D)	(2 621.78)	(4 212.75)	(4 772.90)	(4 302.24)	(2 800.77)	(268.48)	3 294.62	7 888.54	13 513.27	20 168.81	27 855.17	36 572.34
3 Vendors	Additional revenues (75A/D)	1 546.22	3 092.44	4 638.66	6 184.88	7 731.10	9 277.32	10 823.54	12 369.76	13 915.98	15 462.21	17 008.43	18 554.65
(25 A / D each one)	Accrued balance (75 A / D)	(2 106.37)	(2 666.53)	(1 680.46)	851.83	4 930.34	10 555.07	17 726.01	26 443.18	36 706.58	48 516.19	61 872.02	76 77 4.07
4 Vendors	Additional revenues (100 A / D)	2 061.63	4 123.25	6 184.88	8 246.51	10 308.14	12 369.76	14 431.39	16 493.02	18 554.65	20 616.27	22 677.90	24 7 39.53
(25 A / D each one)	Accrued balance(100A/D)	(1 590.97)	(1 120.31)	1 411.98	6 005.90	12 661.44	21 378.61	32 157.41	44 997.83	59 899.88	76 863.56	95 888.87	116 975.80
5 Vendors	Additional revenues (125 A / D)	2 577.03	5 154.07	7 731.10	10 308.14	12 885.17	15 462.21	18 039.24	20 616.27	23 193.31	25 770.34	28 347.38	30 924.41
(25 A / D each one)	Accrued balance(125A/D)	(1 075.56)	425.91	4 504.42	11 159.97	20 392.54	32 202.15	46 588.80	63 552.48	83 093.19	105 210.94	129 905.72	157 177.54

ANNEX N° 2 Household Connections Sale Folder



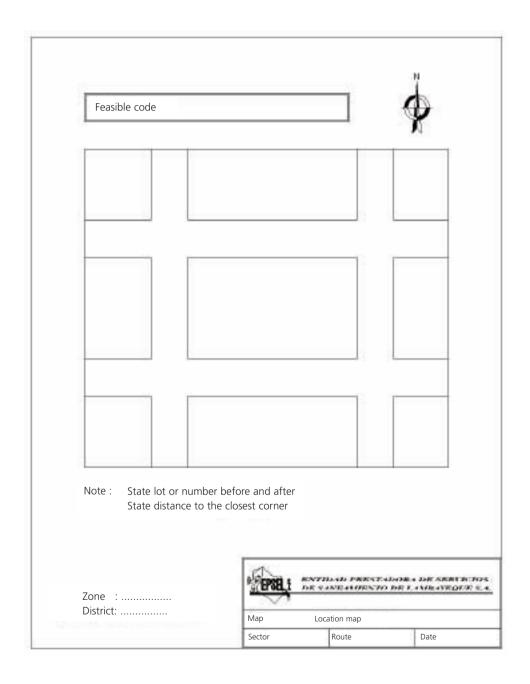


LOCATION MAP SPECIMEN (P. J. PEDRO PABLO ATUSPARIAS - SECTOR IX EPSEL S.A.)



АР	PLICATION SAMPLE	
I hereby request the installation of a	household connection	
Mr. EPS COMMERCIAL MANAGER Address		
I,	wner / possessionary of the property g Water and Sanitation Service Supp	.Shanty town / Urban y where I live, write to ly Regulation approved
Drinking Water	Sanitation	
Property Location : Av./ Street : . Local development/Shanty town/km District : Province :	Domestic / Commercial / Industrial / I	Provisional
Which I require for the corresponding air		
Chiclayo date		
	Name and Last N	ame
Attached:		
 () Copy of the Purchase Public Deed Tite Resolution with Property Title to be referred to the compact of the copy. () Simple D.N.I. or L.E. copy. () Property location diagram. () Owner authorization in case of a term. () Agreement on paying in installments. () Service supply contract. 	regularized, or Possession Certificate, nant	

ACCESS DIAGRAM FORM



OFFICIAL LETTER SPECIMEN

"ACVD UE THE	DILLEVE	V/V/ V VID DEV	ACC DATIC	GOVERNANCE »

Chiclayo,

OFFICIAL LETTER- N°-2004-EPSEL S.A.-GG/GC.

Messrs CHICLAYO PROVINCIAL GOVERNMENT CONSTRUCTION DIRECTORATE ADDRESS.-

Issue: PERMIT FOR BREAKING OF SIDEWALK AND PAVEMENT

(FLEXIBLE / RIGID) (S.S. N° 00110213)

Ref.: ART. 3° of S.D. 013-98-PRES dated 18 / 09 / 1998

I am glad to address you, pursuant to the referred Legislation, to request a PERMIT FOR BREAK-ING THE SIDEWALKS AND PAVEMENT (FLEXIBLE / RIGID) on Tacna Street N° 161 of this city where Drinking Water and Sanitation Household Connections will be installed.

	SIDEWALK	BREAKING		PAVEMENT AKING		AVEMENT AKING
SIZES	WATER	Sewerage	WATER	Sewerage	WATER	Sewerage
	(m)	(m)	(m)	(m)	(m)	(m)
Length						
Width						
Depth						

Sincerely,

Commercial Manager EPS



SIDE SERVICE PRICES

Household connections installation

Connection length	1001	200+	300m	400 m	5 00 m	6 00 m	7.00111	8100.6	900#
Drinking Water connection	01.100	67.725	24.270	90.915	81.360	13 905	100450	106 995	113540
Sanitation connection	64.074	12355	80.418	89.648	261,792	104 980	191511	131-343	109801
Flexible pavement	0.500	17,006	25.500	34,000	42.500	51 100	89,500	68,000	76500
Rigid pavement	18 000	38,006	54 000	12,000	30,000	100.000	128,000	144,000	- 982000
Sidewalk	18:000	38,000	54 000	72,500	30.000	108.000	126,000	144 000	162,000

HOUSEHOLD CONNECTION INSTALLATION BUDGET

Item Drinking water connection Sanitation connection Flexible pavement Rigid pavement Sidewalk Total amount

BUDGETED AMOUNT DIVIDED IN INSTALLMENTS

ltem	amount (S/.)
Down payment	
Balance	
Number of installments	
Installments	

Note: this budget does not include materials

BUDGET AND PAYMENT IN INSTALLMENTS TABLE SPECIMENS

BUDGET TO INSTALL A HOUSEHOLD CONNECTION

Item	Length (m)	Cost (S/.)
Drinking Water Connection		
Sanitation Connection		
Flexible pavement		
Rigid pavement		
Sidewalk		
Total Amount		

PAYMENT IN INSTALLMENTS OF THE BUDGETED AMOUNT

Down payment (0.15 x Total Amount)	
Balance (Total Amount – Down Payment)	
Number of installments	
Installments (Balance / Number of installments)	

IOTE: This budget does not include materials

SPECIMEN OF AGREEMENT N°

Item:			
Reference:			
Entered into on the one hand by EPS	; hereinafter "THE	ADMINISTRATION"	
And Mr.(Ms.) :	DNI	:	
Domiciled at: mutual agreement in the following terms:		hereinafter "THE USER", b	Э
The user commits to pay the liquidation amments duly authorized by the Administration itation invoice.			
Delay in paying one installment will cause v	water service cut-off	without prior notice.	
To get the service restored, the user must p	ay the correspondin	g service restoration fee.	
Delay in paying two consecutive installmer permanent suspension of water service rem cution of judicial collection.			
No other water, sewerage or meter connected from the user who causes the application			t-
The same aforementioned procedure will b sumption.	e followed with the	monthly payment for water cor	۱-
PAYME	NT IN INSTALLMEI	NTS	
1	INSTALLMENT N°	AMOUNT S/.	
3			
4			
5			
6			
7			
8			
9			
10			
TOTAL			
Commercial Manager	Client		
	Name:	DNI:	
Chiclayo,	Connection v	endor	

POTABLE WATER AND/OR SANITATION SERVICE CONTRACT SPECIMEN

CONTRACT N°

This private do	cument cer	tifies the SERVICE	CONTRAC	T entered	d into on th	ne one hand	l and as
grantor by the	EPS with R.	U.C. N°	, dom	iciled at			, repre-
sented by its G	eneral Mana	ager,	ident	ified with	D.N.I N°		,
hereinafter	THE	COMPANY	and	on	the	other	hand
Mr(Ms):				,	identified	with	D.N.I
N°	,	with R.U.C. N°		, and	domiciled	at	
N°	.Urban de	velopment/Shant	y town			, in the	District
of P	rovince of	Depa	rtment of			, hereina	fter THE
CONTRACTING	PARTY, wh	o agree in the foll	owing term	s and cor	nditions:		

- **1.** The Company grants the client the drinking water and/or sanitation service supply. This contract is entered into for an indefinite time except for provisional connections that must be regularized when the company so determines: Rights and duties are contemplated in the Drinking Water and Sanitation Service Supply Regulation that the user obliges to comply. The connection characteristics correspond to the cadastre card attached to the Service that the company will supply at address......
- **2.** The client commits to monthly pay the Company the value for Drinking Water and Sanitation Services, an amount which is established through meter reading or if there is no meter through the average consumption of the last 06 prior valid readings or consumption assignment.
- **3.** The company may suspend services to the client with no need for prior notice or intervention of any authority, in case two consecutive bill months are unpaid. The company will charge for suspension and restoration and the client must pay his/her invoices to have the right to restore services. Likewise, he/she shall pay interest for delay and expense derived from unpaid obligations within due terms, applying the delay interest rate foreseen in the Domestic Currency Lend Rate fixed by the Central Bank of Peru.
- **4.** Once six or more months have elapsed without having paid the invoice, the Company may remove the whole drinking water or sanitation connection, which means the loss of every right the client might have on the connection.
- **5.** The client may request in writing the temporary cut-off of services when the property is uninhabited. If there is no such request, the Company will charge the minimum consumption or the assignment corresponding to the consumption category.
- **6.** The client obliges to facilitate the reading of meters on a monthly basis. In cases in which the Company proves that the meter does not work normally or that it works with any impediment, the average of the last six valid readings will be calculated.

- **7.** It is forbidden to make any connection diversion without express authorization by the Company. In case of any infraction the provision contained in the General Service Supply Regulation and the Law on the matter will be applied, with the immediate suspension of services notwithstanding the pertinent legal actions.
- **8.** The client is responsible for the meter installed in the connection by the Company in case of suspicious theft or deterioration.
- **9.** The client is forbidden from tampering with the meter and drinking water and sewerage household connection. The infraction will give way to sanctions contemplated in the Drinking Water and Sanitation Service Supply Regulation notwithstanding the collection of rights for restoring or for unbilled consumption at current prices.
- **10.** It is forbidden to restore drinking water and sanitation services without prior payment. The infraction will be sanctioned according to the Service Supply Regulation.
- **11.** The client is forbidden to sell the household connection water. The drinking water supply is granted with non-transferable character per each client. The infraction will be sanctioned according to the Drinking Water and Sanitation Service Supply Regulation.
- **12.** Every client is obliged to care for, repair and/or maintain internal installations so as to prevent water waste and consequently the payment of surpluses.
- **13.** As supply holder, the client is responsible before the Company for all the obligations derived from the contract herein.
- **14.** According to article 24 of Law 26338 «General Law of Sanitation Services», the invoices issued by the Company entail execution. In that regard, the company will file any corresponding judicial action in case of non compliance with service payment and the user shall assume the expenses and commission costs by said action plus agreed costs and procedural costs.

NOTE: Every change of use (For example Industrial to Domestic or Domestic to Industrial and Domestic to Commercial or Commercial to Domestic, etc.) must be communicated to the company in writing 24 hours before its occurrence.

The Company will o	only acknowledge the	change of tariff	on the month	subsequent to	the date
when the correspon	nding application was	submitted.			

Signed by the parties in	non	days of the month.	year

EPS	CLIENT
	D.N.I. ó L.E:

Drinking Water and Sanitation Program

IDENTIFICATION BADGE EXAMPLE



VISIT CERTIFICATION EXAMPLE

Visit certific	cation
Mr, EPS household connection v addressP.J./UPISto carry out the necess of Observations	
Date: Chiclayo,	
Vendor	User

SPECIMEN CERTIFICATION OF NOT HAVING MADE ANY PAYMENT TO THE CARRIER

Certification	on of not having made any payment to the carrier
	dentified with DNIdomicileddomiciledcertify that I have not made any payment for any item to the
Date:	Signature

ANNEX 3: Service Vendor Contract Specimen

GENERAL MANAGER CONTRACT N° NON PERSONAL SERVICE CONTRACT

This is to certify the No	n Personal Service contract er	ntered ir	into on the one hand by the EPS v	vith
R.U.C. N°	, domiciled at		, represented by its Gene	eral
Manager	identified with D.N.I N°		, hereinafter the CC)M-
PANY, and on the other	hand Mr.:		, identified with D	.N.I
N°	, with R.U.C. N°	,	, and domiciled at	
N°Urb./P.J	, i	n the	e District of Provi	nce
			e District of Provi hereinafter THE CONTRACTED PAF	

CLAUSE ONE: BACKGROUND

THE CONTRACTED PARTY is an individual who has broad experience and qualification in the execution of works FOR THE SALE OF DOOR-TO-DOOR SERVICES related to drinking water and sanitation household connections and other related to sanitation services.

CLAUSE TWO: CONTRACT OBJECTIVE

This contract aims at hiring the specialized technical services of the CONTRACTED PARTY, so he/she SELLS SERVICES ON A DOOR-TO-DOOR BASIS THAT WILL PERMIT THE COMPANY TO INCLUDE NEW USERS THAT CURRENTLY DO NOT HAVE CONNECTION WITH THE NETWORKS. This contract is signed pursuant to Report N°, issued by the Human Resources Deputy Manager.

CLAUSE THREE: SERVICE SCOPE

THE CONTRACTED PARTY must supply the contracted service according to Technical Specifications which to that effect will be specified by the Commercial Division, a service to be supplied personally.

It is hereby certified that THE CONTRACTED PARTY is not subordinated to the COMPANY. THE COMPANY will assign one of its officials, hereinafter SALE SUPERVISOR to verify and supervise THE CONTRACTED PARTY's work.

SERVICE DESCRIPTION

1. OPERATIONAL WORK DETAIL

- **THE CONTRACTED PARTY** will receive from the **COMPANY** the updated and classified client portfolio with the exact address of domiciles to visit.
- **THE CONTRACTED PARTY** shall verify that the number of the property to visit corresponds to the received portfolio.
- **THE CONTRACTED PARTY** shall point out the complementary information required by the COMPANY during his/her work, same which will make part of the submitted report.
- **THE CONTRACTED PARTY** will regularly submit the information on attracted clients to the SALE SUPERVISOR together with a report including the following data:
 - Regularized client name
 - Exact address
 - Status of documentation submitted to the Sale Supervisor
 - Cadastre code
 - Type of service the user has
 - Household connection status
 - Complementary information he/she deems convenient
 - Visit date
 - Service vendor name

THE SALE SUPERVISOR will proceed to verify the work done thanks to the Service Sale Progress and Documentation Status Report. He/she will analyze the files as part of the agreed control to check if the work is well done. Otherwise the correction will be submitted to the sales personnel who should apply it. If not, it will be annulled, which will mean a negative point against the vendor.

In case **THE CONTRACTED PARTY** identifies additional feasible users to those provided him by the EPS (that is, attracted outside of the list), he/she shall report a list so it is verified by EPS personnel who is specialized in cadastre activities. If the EPS confirms the validity of the information, the service will be sold.

2. DOOR TO DOOR SALE PROCESS

- Receive a work order consisting of an updated and classified portfolio with the exact address of domiciles to be visited.
- Get a work file with requirements, forms and brochures.
- Plan a daily route for visiting clients and sell services.
- Inform clients about visit objectives as well as requirements and facilities for the procedure to be undertaken.
- Identify clients, as well as the place and schedule in which they can be located for filling in and signing the forms.
- When it is not possible to find the property owner, coordinate with the interviewed person to collect duly filled-in and signed information.
- Visit clients repeatedly until requirements are completed.
- Collect every requirement for the new connection file including: service request application, property purchase contract or possession certificate, DNI copy, rent contract if it is a tenant, sworn statement in case any of the documents is missing, a copy of the water invoice (if such is the case), supply contract, agreement on paying an installment if he/she must pay any fee.
- Report any findings or inquires of unforeseen cases or unknown cases to the SALE SUPERVISOR.
- Submit the files in the Sales Report to the SALES SUPERVISOR
- Submit the service sale liquidation on the 20th of every month to generate his/her own payment at the end of the month.

CLAUSE FOUR: SERVICE VALUATION AND PAYMENT

SERVICE CONFORMANCE

Service conformance and efficiency will be granted by the Commercial Deputy Manager or Zone Head who will issue the evaluation report, thus determining the amount to be paid to the hired personnel.

The following will be taken into account for the evaluation:

The **COMPANY** will pay hired personnel on a monthly basis at the unit price agreed for each regularized connection according to the submitted liquidation and monthly supervision report, where quality and timeliness will be evaluated.

PAYMENT MODALITY

■ THE CONTRACTED PARTY will submit his/her estimated amount on a monthly basis according to progress made in the hired services through a receipt pursuant to law. The Commercial Deputy Manager or Zone Head will express conformance with it and submit it with the respective report to the Commercial Manager, who will submit it to the Administrative Manager for processing and payment.

SERVICE VALUATION

Service Detail	Unit Price (S/.)
Drinking water connection sale	15.00
Sanitation connection sale	15.00
Correct identification of any feasible user who is outsider the list	1.00

CLAUSE FIVE: CONTRACT MODALITY

THE CONTRACTED PARTY will be assigned tasks specified in Item 1 and/or 2 and will be contracted under the Service Contract Modality (paid through receipt), being ruled by Art. 1764 and subsequent in the Civil Code and paid by the **COMPANY's** Operational Budget for year.....

CLAUSE SIX: SERVICE DURATION

The contracted service will be from to......

In case the Commercial Division issues negative reports on services rendered, the contract will be resolved in full right. The remittance of a Notary Letter ONE (01) day in advance shall suffice there-to

CLAUSE SEVEN: SERVICE SUPPLY

THE CONTRACTED PARTY will receive the distribution of daily work from the Commercial Deputy Manager at, after which he/she will go to the field and perform his/her duty concerning the list received.

INFORMATION AND COORDINATION

- THE CONTRACTED PARTY will receive the necessary information to perform his/her job in an orderly manner. likewise, he/she commits to comply with work reports and to communicate any observations, occurrences and relevant findings.
- I Strict and permanent coordination of contracted personnel, Sale Supervisor and Commercialization Deputy Manager or Zone Head.

CLAUSE EIGHT: WORK PLACE

THE CONTRACTED PARTY will work at

CLAUSE NINE: RIGHTS AND DUTIES OF THE PARTIES

RIGHTS AND DUTIES

1. THE COMPANY

- Authorizing and submitting duly classified client portfolio
- Supervising attracted client files.
- Supervising the work done through the Commercial Manager who will assign the necessary personnel.
- Controlling door-to-door service sale for the IT system.
- Following up and evaluating the service through efficiency indicators.
- Rejecting any services that do not comply with the Technical Specifications.
- Requesting the change of personnel who do not fullfil THE COMPANY's requirements, to be immediately replaced.
- Paying for the hired services on a timely basis.

2. THE CONTRACTED PARTY

- Performing the contracted services in a technical and appropriate way according to assigned objectives.
- Opportunely responding to any inquiry or question THE COMPANY can make in connection with the hired service.
- Providing the necessary means for efficient execution of hired work.
- Not transferring (sub contracting) either totally or partially, the contracted service, being fully responsible for work performance and compliance.
- Responding for non compliance or for partial, delayed or defective work, being subjected to paying damages which will be evaluated by THE COMPANY and deducted from the payment of the month following the occurrence.

CLAUSE TEN: CONTRACT RESOLUTION CAUSES

THE COMPANY reserves the right to resolve the contract herein for any of the following causes:

- Due to non compliance with any of the contractual stipulations established in the contract herein.
- Due to duly demonstrated Act of God or Force Majeure.
- Due to bankruptcy or insolvency.
- By mutual agreement between the parties.

CLAUSE ELEVEN: FOLLOW-UP, SUPERVISION AND EVALUATION

The Commercialization Deputy Manager will be responsible for directly following up and supervising the work done.

The work evaluation will be based upon scheduled goals and communicated in writing to the CONTRACTED PARTY by the Commercialization Deputy Manager.

CLAUSE TWELVE: LEGAL PROVISIONS

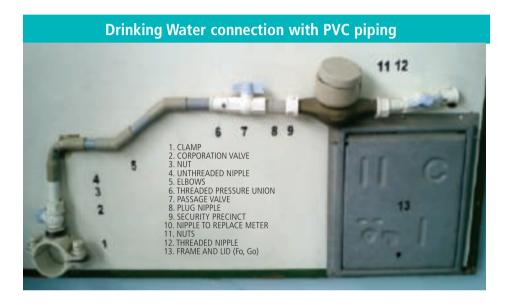
Any event unforeseen in the contract herein will be resolved by harmonic agreement between the parties and will be the subject matter of a document attached to the contract herein.

In case of disputes deriving from the contract herein, the parties waive the jurisdiction of their domiciles and expressly submit to the jurisdiction and competence of the judges and courts in the Higher Court of the city of

Once read and found conformant, the contracting parties subscribed the contract herein in witness thereof inon.......

COMPANY	CONTRACTED PARTY
	D. N. I.:

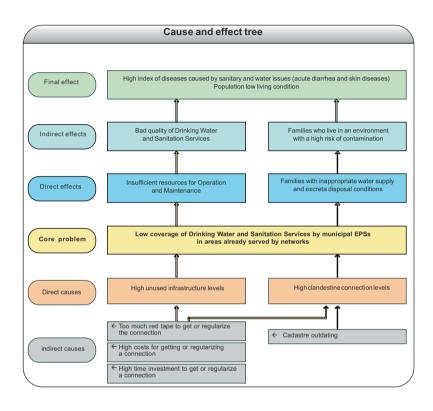
Typical Scheme of a Drinking Water Household Connection



ANNEX 4: Specimen of Methodological Script for Training Service Vendors

DARTICIDANTS: 5 \/		TLE: OFFICE TRAINING FOR SERVICE VEND Place: EPS Commercial Management	Date: 12/01/2005		
PARTICIPANTS: 5 Vendors, 2 Trainers Experience Objective: To understand the importance of their work for process success. STYLE: Vertical, open with questions, following the Script in all its points.		Rational Objective: To be well trained to perform their work. Decisional Objective: To have scheme defined when they vis			n action
		ENVIRONMENT: All the participants around a table.	NOVELTY: The user needs services, the EPS must offer them at their domicile.		
PROCESS	TOPIC	DEVELOPMENT	MATERIAL	TIME	PERSON IN CHARGE.
	Greeting and Welcome	Thank them for the attendance, brief information on training objectives.	-	3 min.	
	Introduction of trainers and vendors	Participants mention their personal data and briefly explain their experience on the issue.	-	5 min.	
I INTRODUCTION	3. EPS information	Brief presentation of the EPS structure and Commercial Division and role of vendors in the system.	-	10 min.	
	Door-to-door service sale	General description of the door-to- door sale procedure, its stages, sequences and interrelations.	Flipcharts	10 min	
II KNOWLEDGE	Services supplied by the EPS	Explanation of the water supply and excreta disposal system. Household connection networks.	Posters, brochures	10 min.	
OF SERVICES BEING SOLD AND SUPPLIED BY	Characteristics of a household connection	Explanation of the materials that make up water and sanitary connections and their construction.	Flipcharts	15 min.	
THE EPS	Economic aspects of connection installation	Side service cost structure and user possibilities for paying in installments. Comparison with former costs.	Flipcharts, photocopies	10 min.	
III CORRECT FILLING IN OF	1. EPS requirements	Detailed explanation of documentation required by the EPS for installing a new connection.	Regularization file	10 min.	
THE SALE FILES	2. Sale files	Guidance to fill in the sale files forms in the right way.	Specimen forms	10 min.	
	Cadastre system	Brief explanation of the EPS cadastre information system and the EPS division into sectors.	Billing sector maps	5 min.	
IV CADASTRE	Cadastre map reading	Explanation of nomenclature and segmentation used in the maps to facilitate cadastre work.	Town cadastre map	5 min.	
ASPECTS	3. Property location	Criteria for locating properties through the cadastre code structure.	Guided practice on coded lot map	10 min.	
V	EPS internal procedure	Explanation on how the files are submitted to the EPS, how the cadastre code is assigned, how the file is reviewed and mistakes are corrected.	Flipcharts	10 min.	
INTERNAL OPERATIONAL	2. Result controls	Mechanisms for supervising and following up vendor work and yield evaluation.	-	10 min.	
ACTIVITIES AT EPS	Service vendors remuneration	Payment modality according to files approved by the EPS.	-	10 min.	
VI COMPLETION	1. Feedback	Vendors' final questions.	List of attendants	15 min.	
COMPLETION	2. Acknowledgment	Registration in the list of attendance.	with their personal data		

ANNEX 5: Logical Framework Specimen



Logical Framework Matrix Specimen

Objective Hierarchy	Targets	Indicators	Verification Sources	Assumptions
Direct objectives: More families have sustainable drinking water and sanitation services	8.000 additional drinking water or sanitation connections within the area covered by the EPS as Project output	Nº of drinking water and sanitation connections included within EPS coverage	EPS Client Cadastre Office	
Purpose: Improving EPS service coverage in the area covered by networks	Increasing EPS coverage by 5% in both services	Drinking water and sanitation coverage by EPS	EPS Client Cadastre Office	EPS complies with its obligations
Result 1: Decreasing clandestine user level	Regularizing 4.000 clandestine connections	Number of regularized connections	EPS Client Cadastre Office	EPS complies with its obligations
Result 2: Increasing the number of new users	Connecting 4.000 new users	Number of executed connections	EPS Contract Office	EPS complies with its obligations
Action 1: Decreasing cost for regularization Action 2:	Reducing the cost by at least 30%	Cost before vs. Cost after	Commercial Division	EPS follows received instructions EPS follows
Decreasing cost for new connection	Reducing the cost by at least 50%	Cost before vs. Cost after	Commercial Division	received instructions
Action 3: Obtaining credit for regularization	A minimum of 5	Proposed installments	Commercial Division	EPS follows received instructions
Action 4: Offering credits for connection	monthly installments	Proposed installments	Commercial Division	EPS follows received instructions
Action 5: Decreasing red tape and time invested to regularize	A door to door promotion system	Organized system (there are connection	Commercial Division	EPS follows received instructions
Action 6: Decreasing red tape and time investment for new connection	is organized	vendors and clandestine user regularization agents)	Commercial Division	EPS follows received instructions

ANNEX 6:

Specimen of Interinstitutional Cooperation Agreement on Drinking Water and Sanitation Household Connections

EXTERNAL ENTITY – EPS	
«INTERINSTITUTIONAL COOPERATION AGREEMENT ON POTABLE WATER AND SA	ANI-

Entered into by the EXTERNAL ENTITY and the Sanitation Service Provider Enterprise – EPS.

TATION HOUSEHOLD CONNECTIONS »

CLAUSE ONE BACKGROUND

- Increasing access to drinking water and sanitation in shanty towns and urban developments.
- Fostering population organization

THE ENTITY and the EPS understand that joint work in expanding basic service coverage and sanitary education may contribute to improve the living conditions of still unserved population.

Likewise, the EPS is devoted to developing a comprehensive user cadastre so as to incorporate feasible clients in the shortest term.

CLAUSE TWO LEGAL FRAMEWORK

CLAUSE THREE AGREEMENT OBJECTIVE

The EPS and THE ENTITY aim at complying with joint objectives and agree to carry out the following activities:

Providing shanty town and urban development dwellers basic services in the District.....

Improving Shanty Town Environmental Sanitation.

Benefiting them economically by exempting them from paying all the fees corresponding to drinking water and sanitation household connections.

CLAUSE FOUR TARGETS

Through this agreement, the EPS and THE ENTITY establish the following:

- **I** Executing a total of NNNN household connections between drinking water and sanitation. This figure can vary according to the user cadastre being prepared by the EPS and the financial capacity of both institutions.
- ■|EThese activities will be carried out according to a schedule agreed by both parties which is part of the Agreement herein.
- Expanding the targets -following mutual agreement- and according to the availability of resources by the parties through an addendum to the agreement herein.

CLAUSE FIVE AGREEMENT EXECUTION AND RESPONSIBILITIES

The Agreement herein establishes:

- The Municipality commits to provide any necessary material for the execution of works related to Drinking Water and Sanitation Domicile Connections, according to the list of materials submitted by EPS.
- The makeup and operation of the committees for the development of works will be defined by THE ENTITY. This clause will only be applied to Sectors (Urban development and Shanty Towns) representing more than 50 connections. In the other cases treatment will be individualized.
- A Registration of Beneficiaries is limited to households which already have drinking water and/or sanitation network in front of their dwellings. It will be coordinated with the EPS through its competent area.

- The beneficiaries agree to contribute with:
 - Unqualified labor

The formalities in this agreement are the subject matter of other documents where the corresponding commitments are expressed, taking into account that according to current regulations household connection costs are assumed by users.

- As the entity responsible for executing the household connection works the EPS will provide:
 - Qualified labor
 - Compacting plate
 - Works inspection

To facilitate the fluidity of Works, the EPS will provide transportation for materials from the Municipality warehouses, any required machinery and corresponding inputs such as fuel, lubricants and additives for their operation.

- The EPS will guarantee the quality and continuity of works.
- The EPS commits to assign the corresponding budget to pay for qualified labor and assume commitments pursuant to Article Five.
- Through a Sanitary Education Team, the EPS commits to train the beneficiary population on Sanitary Education through the usual techniques used by the Company in said area. This training will be given according to the scheduling of activities referred to in article four.
- The EPS commits to not charging any amount for installing the secondary network or house-hold connection to families that directly benefit from project execution.
- Non compliance with the contributions set forth for each party lead to stop the execution of works in the involved area.

CLAUSE SIX RESOLUTION CAUSES

- The Agreement herein may be resolved by mutual agreement or following a breach in the obligation of one of the parties.
- To do so, a communication in writing thirty (30) calendar days in advance shall suffice.

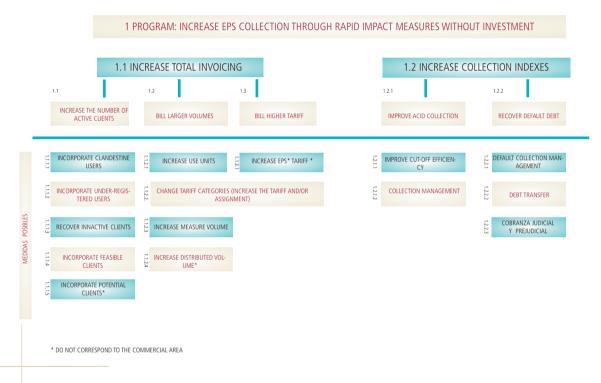
CLAUSE SEVEN VALIDITY

The Agreement herein comes into effect as from its subscription date and remains in effect as to
The parties can extend the Agreement effects by mutual agreement for the period they deem necessary to achieve the objective or objectives of the Contract herein.
CLAUSE EIGHT COMPLEMENTARY PROVISIONS
Any actions not foreseen in the Agreement herein can be included through an ADDENDUM or another fully effective document where both parties express their will.
In witness thereof, the parties subscribe the Agreement herein in on day of the month of February 2004.

ANNEX 7: Module Planning Form

MODULE PLANNING FORM (FPM) MODULE: SALE OF NEW CONNECTIONS

Location of the Module in the Program: Tree of Measures



TARGET GROUP DEFINITION

MAIN TARGET GROUP

| CONNECTION DEPARTMENT | COMMERCIAL DIVISION

| CLIENT CADASTRE | COMMERCIAL PLANNING | SERVICE TO CLIENT

Definition of Objectives and Document General Structure:

MODULE TERMINAL OBJECTIVE

The trained and/or advised EPS implements a new connection sales Program

Partial objectives

A The target group understands the origins of clandestine users and acknowledges that the EPS is partially responsible for it.

B The target group knows it is necessary to charge a competitive cost for a new connection according to market prices.

C The target group knows it is necessary to divide the payment in installments for a new connection.

D The target group acknowledges the importance of having identified feasible users well.

E The target group knows it is necessary to improve and expedite procedures for new connections and understands steps prior to implementation.

F The target group knows how to implement a new connection sales system.

GENERAL DOCUMENT STRUC-TURE

- 1.1 General Problem
- 1.2 General Aspects
- **2.1.1** Determination of side service costs per connection.
- **2.1.2** Determination of modalities to divide the side cost in installments.
- 2.1.3 Identification of feasible users.
- **2.1.4** Procedure design.
- **2.2** Door-to-door service sales procedure.

ANNEXES: Documents necessary for the implementation.

Drinking Water and Sanitation Program

Glossary

VENDOR FILE

USER FILE

EPS CLIENT CADASTRE

CADASTRE CODE

VENDOR COMMISSION

CLANDESTINE CONNECTION

WATER HOUSEHOLD CONNECTION

SANITATION HOUSEHOLD CONNETION

INSTALLMENT AGREEMENT

PROPERTY

- I Set of all the necessary elements to prepare the application to request a new connection, which the vendor must take to the user's domicile.
- List of feasible users assigned to a service vendor for a certain time.
- Descriptive list of a certain population graphic statistics of properties, be they houses, lots, etc. which contain real market information and current or future clients.
- Single property identification (client or not client) within the jurisdiction of the EPS.
- What the service vendor receives per household connection he/she is able to sell, and which has a satisfactory outcome.
- It is the drinking water or sanitation household connection executed without any EPS knowledge or authorization and which uses its services.
- Set of accessories and piping going from the public network to the user's inspection box which allows supplying property with drinking water.
- Set of accessories and piping going from the public network to the user's home and allowing evacuating waste water from the property.
- I Subscribed between the EPS and the user where the amount and number of installments to be paid for installing the household connection is determined.
- Lot, estate, plot, land or realty possession.

INVOICE DISTRIBUTORS

SIDE SERVICES

SUPPLY SERVICES

TYPE OF SERVICES

FEASIBLE WATER USERS

FEASIBLE SANITATION USERS

FUTURE FEASIBLE USERS

SERVICE VENDOR

- [EPS employees who distribute invoices on a monthly basis.
- 【Complementary services -besides water and sanitation- that the company offers users (for example connection installation).
- Services that the EPS supplies its clients pursuant to a contract.
- 【Cadastre characteristic indicating which services the EPS is supplying to clients. It may be (1) Drinking water and sanitation (2) Only drinking water (3) Only sanitation.
- Properties or households which do not have a water household connection but have a water matrix network in front of their lot.
- Properties or households that have no sanitation household connection but which have a sewerage collector network in front of their lot.
- Inhabited households or empty lots do not generate an immediate need for services because they have no inhabitants.
- Authorized EPS agent in charge of visiting immediate feasible users at their domicile to offer and advise them in installing a household connection.

Drinking Water and Sanitation Program

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	General Sanitation Service Law
D.S. N° 09-95-PRES	
	Regulation of the General Sanitation Service Law
TD0.0 1 0 1 D 1 1	
EPS Service Supply Regulation	
Final Report on the PROAGUA-EPSEL S.A.	
10.000 Connection Plan Agreement	
101000 Connection Flam Agreement	
Costs of Side Services	
approved by SUNASS	

Acronyms and Abbreviations

«	Pulgada(s) / Inch(es)
Α	Servicio de agua / Water service
Art.	Article (in legal regulations)
Av.	Avenida / Avenue
C.	Calle / Street
Cáp.	Capítulo / Chapter
Conex.	Conexiones (Agua o Alcantarillado) /Connections (Water or Sanitation)
COTEC	Cooperación Técnica Cultural y Ambiental Brüning / Brüning Technical Cultural and
	Environmental Cooperation
CV	Curriculum Vitae / Curriculum Vitae
D	Servicio de Desagüe (Alcantarillado) / Sewerage Service (Sanitation)
DNI	Documento Nacional de Identidad / National Identity Document
D. S.	Decreto Supremo / Supreme Decree
EPS	Entidad Prestadora de Servicios de Saneamiento / Sanitation Service Provider Enterprise
EPSEL	Entidad Prestadora de Servicios de Saneamiento de Lambayeque / Lambayeque Sanitation
	Service Provider Enterprise
est.	estándar / Standard
etc.	etcétera (y restantes) / etcetera (and others)
Fig.	Figura / Figure
Fo Go	Fierro Galvanizado / Galvanized Iron
GTZ	Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH (Cooperación técnica
	alemana) / Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ) GmbH (German
	Technical Cooperation)
<u>h– h</u>	Horas — hombre / Man - Hours
h– m	Horas - máquina / Machine -hours
IGV	Impuesto General a las Ventas / General Sales Tax
Jr.	Jirón / Street
m	Metro (s) / Meter(s)
M3	Metro(s) cúbico(s) / cubic meters

4 10	W
1mill.	millar / 1 thousand
N°	Número / Number
ONGD	Organización No Gubernamental de Desarrollo / Non Governmental Development
	Organization
Pág.	Página / Page
Párr.	Párrafo (sección del presente documento) / Paragraph (section of this document)
PJ	Pueblo Joven (Plural PP.JJ.) / Shanty Town (Plural PP.JJ.)
PRES	Ministerio de la Presidencia / Presidency Ministry
PROAGUA	Drinking Water and Sanitation Program / Drinking Water and Sanitation Program
PVC	Polivinil Cloruro / Polivynil Chloride
S.A.	Sociedad Anónima / Public Corporation
<u>S/.</u>	Nuevos Soles (Moneda del Perú) / Nuevos Soles (Peruvian Currency)
SUNASS	Superintendencia Nacional de Servicios de Saneamiento / National Sanitation Service
	Superintendence
UPIS	Urbanización Popular de Interés Social / Social Popular Urban Development
Urb.	Urbanización / Urban Development

VMCS - DNS

Peru's sanitation agencies are under the Ministry for Housing, Construction and Sanitation (MVCS is the Spanish acronym). This is the governing state agency for sanitation service issues and it operates through the Vice-Ministry for Construction and Sanitation (VMCS in Spanish) and the National Sanitation Directorate (DNS). VMCS is the government agency charged with designing and adopting general sanitation policies pursuant to the guidelines set forth by the Minister. DNS is the line body charged with preparing the policy guidelines, plans, programs and regulations concerning basic sanitation services.

In addition, there are other bodies and organizations that also perform functions indirectly related to this mandate, such as the Ministry of Economy and Finance, the National Superintendence of Sanitation Services (SUNASS), the Environmental Health General Directorate (DIGESA), the local and regional governments, grassroots organizations, the water and sanitation utilities and several international cooperation agencies.

GENERAL OBJECTIVE

To contribute to expanding the coverage and improving the quality and sustainability of drinking water, sewerage, waste water treatment and excreta disposal services.

MVCS is the governing authority for sanitation policy and as such it has set itself the objective of expanding coverage, assuring system sustainability and improving the quality of sanitation services by accomplishing economic and business efficiency and protecting the environment and people's health. To accomplish such general objective, it has identified the following specific goals:

SPECIFIC GOALS

- 1. Modernizing the sanitation industry's management.
- 2. Enhancing service sustainability.
- 3. Improving service quality.
- 4. Making service suppliers financially viable.
- 5. Expanding access to services.

STRATEGIC GUIDELINES

- To improve the industry's legal and institutional framework.
- To strengthen the providers' capacities to accomplish effective decentralization.
- To make the best possible use of the sector's (DNS-PARSSA-PRONASAR, and other agencies and organizations) internal capacities to expand local capacities and reach decentralization goals.
- To improve the service suppliers' management capacities by, among other tools, introducing management contract schemes in these utilities.
- To funnel investment resources through the Sanitation Social Investment Fund INVERSAN.
- To involve the private sector in this industry's management and investment projects.

GTZ/PROAGUA

Technical cooperation agreement signed between Germany and Peru.	Political agreements governing the support provided by German Technical Cooperation.
Technical Cooperation Agency: GTZ	Delivery of technical assistance, advice and training.
Financial Cooperation Agency: KfW	Investment financing for water and sanitation infrastructure
Counterparty: VMCS-DNS	General coordination of programs supported by KfW and GTZ.
Implementing bodies: 12 sanitation services supplier utilities (EPS)	Stewards for individual project implementation
Life of present phase: 2008 – 2011	

GTZ/PROAGUA OBJECTIVE

Contributing to ensure sustainability of water and sanitation services in selected cities pursuant to this industry's policy framework.

GOALS SUPPORTED BY GTZ/PROAGUA

- 1.Increasing drinking water and sanitation service coverage.
- 2. Increasing drinking water and sanitation service quality.
- 3. Enhancing service delivery efficiencies.

COMPONENTS

1. Improving framework conditions in the sanitation sector.

- Improving governance in water and sanitation services.
- Fostering economic incentives for sustainable sanitation.

2. Water and Sanitation Training Program

- Strengthening this industry's training structures.
- Improving management skills and technical knowledge for industry staff.

Rapid Impact Measures Program (PMRI in Spanish)

- Improving the EPSs' economic and financial standing.
- Improving the coverage, quality and continuity of drinking water services.

ANEPSSA

The National Association of Sanitation Service Provider Entities (ANEPSSA PERU is the Spanish acronym) is a non-profit civil society organization governed by Peru's Civil Code and its own bylaws. It brings together all recognized sanitation service provider entities (EPS) of Peru. Its main objective is to strengthen the sanitation industry by improving EPS's management for the benefit of Peruvians.

MISSION

To promote excellence in management of sanitation services delivered by its members through training, coordination, cooperation and experience and knowledge exchanges and thereby contribute to improving the people's quality of living.

VISION

The Association will be recognized as sanitation industry's key actors and related institutions as an efficient and effective organization focused on meeting its associates and the population's needs.

INSTITUTIONAL VALUES

- Team work
- Transparent management
- Continued improvement of service quality
- Equity and solidarity
- Contributions from its members
- Consistent management and acceptance of regulations

STRATEGIC OBJECTIVES

- Improving the Association's management
- Improving coordination with government agencies with an emphasis on regulatory and standardization issues
- Increasing its membership
- Improving relations between its members and users
- Providing training and technical skills to its members
- Promoting experience and knowledge exchanges among its members and with sister organizations

ACTION LINES

- Proposal of and participation in regulatory improvement efforts
- Support to human resource and management development within EPSs
- Strengthening the Association's management unit

Drinking Water and Sanitation Program

SANITATION PROVIDER ENTERPRISES' COMMERCIAL MANAGEMENT SERIES

■ MODULE N°1 CADASTRAL DYNAMIC UPDATING

■ MODULE N°2 MASSIVE CLANDESTINE USER REGULARIZATION

■ MODULE N°3 SALE OF NEW CONNECTIONS

■ MODULE N°4 PAST-DUE COLLECTION AND EFFECTIVE CUT-OFF MANAGEMENT

■ MODULE N°5 TOOLS FOR OPTIMIZING METERED CONSUMPTION

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