



## Module 2

# Sanitation Provider Enterprises' Commercial Management Series

## Massive Clandestine Connections Regularization



PERÚ

Ministerio  
de Vivienda, Construcción  
y Saneamiento



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wirtschaftliche Zusammenarbeit  
und Entwicklung






Sanitation Provider Enterprises'  
Commercial Management  
Series:  
Module 02

Massive Clandestine Connections  
Regularization

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# 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.

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# Introduction

As in other developing countries, Peru sees a seemingly unending phenomenon: informality. There have been many efforts to fight it in different States. There have been few successes and apparently it is an increasing phenomenon. According to Enrique Ghersi, bright Peruvian Economist (*El Costo de la Legalidad* (The cost of Legality); Santiago de Chile, 1998) a law is not respected when it is too costly or requires too much time and information.



*Hernando de Soto*

Observing the sanitation sector, we also observe high informality rates in the so-called “clandestine connections.” They exist because of the same reasons Ghersi points out: it is too lengthy to request water or sewerage connection, red tape is impossible to complete and costs are so high that it is difficult to assume them in just one payment.

Conclusion: Users become informal and clandestine, running the risk of being detected, fined and punished.

Hernando de Soto, another Peruvian and bright economist (*The Mystery of Capital*; Lima, 2000 and *The Other Path*; Lima, 1986) shows us the roads from informality to formality in what concerns informal property, highlighting the importance of:

- Decreasing formalization times
- Decreasing information costs
- Decreasing the costs of going from informality to formality

The implementation of his theories in Peru through COFOPRI (Informal Property Formalization Commission) has achieved spectacular success: today, the property of almost 2 million lots has been regularized, thus benefitting more than 8 million Peruvians with formal and legal properties. We can see that the road from being clandestine to being formal is possible with no need to use oppressive measures.

This handbook “Massive Regularization of Clandestine Connections” makes part of the series of handbooks called Commercial Management Series and analyzes the origin of clandestine connections within EPSs jurisdiction, proposing alternative solutions for its reduction such as massively identifying clandestine connections and door-to-door service to formalize identified connections. This handbook has been prepared based upon experiences developed at EPSEL S.A. in Lambayeque.







# 1

## Causes and Effects of Clandestine Connections

### 1.1. Who are the clandestine users?

(1) **Clandestine** (*from latin Clandestinus*): Secret, hidden and especially done or said secretly out of fear from law or to elude it. (Royal Spanish Language Dictionary)

(2) Water clandestine use has many forms and it is important to distinguish them to be able to fight them through appropriate strategies. In the case of drinking water we **differentiate** between:

- Clandestine users who are not recorded EPS clients yet and
- Those who are, but who try to avoid paying the service

(3) In the first place we have clandestine modalities referred to users that **are not EPS clients yet**:



#### CLANDESTINE CONNECTION

Water and/or sewerage connection made without EPS supervision. Hence, it is not recorded in its database.

This connection has not been executed by any investment program and it might not comply with every EPS technical condition.



#### UNDER-REGISTERED CONNECTION

A connection executed with EPS supervision but which is given a clandestine use. These cases occur for example when connections are installed in an uninhabited lot that later becomes inhabited. It usually complies with every EPS technical condition. It owes its name to the fact that they are not recorded in the EPS database.



#### PROVISIONAL CONNECTION

This is a clandestine connection whose distribution networks do not comply with EPS technical conditions. They can be clandestine networks or lesser diameter networks executed with the support of municipalities or other entities supplying public fountains. They are called Provisional Connections only when the EPS authorizes the use temporarily -when it is no longer clandestine-.



#### RIGHT OF WAY

This is a household connection that crosses an EPS client's property to serve other(s) that do not have the service. The installation is made without EPS knowledge or authorization. It can be horizontal or vertical and related to the water and/or sewerage service. It can be caused by the impossibility of connecting the other user or by a clear fraudulent usufruct intention.

*In these cases, users got connected in a clandestine way to get the water service and they might not have had a clear fraudulent intention.*

(4) The following cases are different from the aforementioned ones because there is an intention of not paying for the service or hiding true consumption:



#### CONCEALED CLANDESTINE CONNECTION

A user registered as EPS client who has a metered connection but who prevents water from passing through the meter by means of a bypass or a separate clandestine connection, thus avoiding to pay what he/she should. In a broader sense, meter tampering can also be understood as concealed clandestine connection.



#### ARBITRARY CLANDESTINE CONNECTION

User recorded as an EPS client who has been cut off or suspended because of having a debt or because of having so requested and has somehow reconnected the service arbitrarily without EPS knowing it.

*In these cases, users got connected in a clandestine way with the clear intention of committing fraud against the EPS and this is a crime specified in the CRIMINAL CODE!*

**CRIMINAL CODE  
TITLE V – CRIMES AGAINST  
PROPERTY  
CHAPTER I – THEFT**

■ **Article 185. Simple theft**

*The person who, in order to get profit, illegally takes a movable good, which totally or partially belongs to someone else, stealing it away from the place where it lies, will be repressed by imprisonment of no less than one or no more than three years. Electric energy, gas or **water** and any other energy or element with an economic value, as well as any electromagnetic spectrum are also movable goods.*



## 1.2. Why would someone connect in a clandestine way?

(5) Many people who wish to get a water or sewerage connection approach the EPS to request it. This shows a lack at the EPS. Any company seeks to get new clients by visiting them and convincing them to be their clients. Municipal EPSs know perfectly well where their future clients are thanks to their cadastre. They are called **feasible users**. However, oftentimes, they wait until clients approach the company if they are interested, while everybody knows no one can live without water.

A feasible user is a lot without service connection but with an existing network and neighbors connected to it.

(6) When possible clients learn about the bureaucratic requirements they have to comply with, a great majority prefers **not to go back** to the EPS to continue with the legal procedure. This is explained by:

- High and unjustified connection costs.
- Lack of credit.
- Deficient service and lack of respect to potential clients.



*Figure 1. Users queuing up*

(7) There can be multiple internal causes at the EPS which almost automatically cause high clandestine user levels:

#### TIME AND MONEY INVESTED IN REGULARIZING

- Number of required visits to the company.
- Number of waiting days until the household is connected to the service.
- High cost for service connection, not justified by company costs.
- Absence of credit lines for household connections.

#### TOO LEGALISTIC REQUIREMENTS

- Inexistent documents that prevent the stakeholder from pursuing the procedure.
- Documents which acquisition would mean a considerable additional cost.
- Heavy burden for client's mind and patience.

### ABSENCE OF GOOD AND RESPECTFUL TREATMENT TOWARDS CLIENTS

- The applicant is identified as a nuisance.
- The clandestine user who wishes to become formalized is treated as a criminal.
- EPS is disinterested about connecting feasible users.
- EPS officials' and employees' bureaucratic attitude.
- Lack of awareness about the need to have clients for the company's sake.
- Absence of a clandestine connection permanent identification.

(8) If EPS characteristics coincide with the aforementioned, then there is certainly already an informal specialized sector (plumbers) who cater for the needs of users without red tape, at low prices, installing their connection on the same day. Whoever wanted to become EPS client finally becomes a clandestine user who does not pay. Frequently, the same EPS personnel install both legal and clandestine connections.

### TRADITIONAL PERCEPTION OF A CLANDESTINE USER



The clandestine user is a person who steals service from the EPS. This user is a shameful criminal and should therefore be punished, either charging him/her for the connection or suspending it.

**Effects:** the company has few clients, less income and is seen by the population as a punishing and bureaucratic entity.

## PROPOSED VISION



Clandestine users are future EPS clients. For them to become clients, it is necessary to facilitate procedures, divide pending payments in installments, to make an appropriate connection and to convince them about the benefits of being a client.

**Effects:** coverage is increased, as well as billing and collection. The image changes and the population see the EPS as a collaborating entity.

### 1.3. What are the harms of having clandestine users?

#### HARMS OF HAVING CLANDESTINE USERS FOR THE EPS



- (9) The effects of having a mass of clandestine users for the EPS are evident: less clients, less coverage, less billing, less collection. Likewise, an EPS with high clandestine levels has more **not-accounted-for water**, which is one of the most important management indicators. Less frequently, there are also clandestine connections with technical deficiencies such as leaks.

Not-accounted-for water (ANC, in Spanish) is the difference between the produced and billed volume.

#### HARMS OF BEING CLANDESTINE USERS



- (10) The disadvantages for the user are less obvious but not in-existent. In Chiclayo, we have observed certain “mafias” that supposedly collect money on behalf of EPS. On the other hand, when a clandestine user is detected, the EPS usually leaves a notification which, when ignored, -due to the same already mentioned obstacles- ends up in the connection being suspended. This implies a loss of the consumer’s investment and, in the case of EPS, the loss of a sure client.

Recovery is the estimated volume consumed during the time the service was used in a clandestine manner.

- (11) On the other hand, the client is subjected to Recovery collection and this can be as high as an entire year of consumption. A badly made connection can have less pressure than the ones made by the EPS.



#### SUMMARY



#### QUESTIONS



#### TASKS



#### RECOMMENDATIONS

■ Clandestine connections are frequently promoted by the EPS itself.

■ Clandestine users are potential EPS clients.

#### In your EPS:

■ Are there a lot of clandestine connections?

■ Do you look for your future clients or do they first have to approach the EPS?

■ What do you do to prevent having clandestine users and how do you treat them?

■ Have these strategies had the expected success?

■ Find out how many clandestine connections were detected last year in your EPS and how many of these clandestine users are now clients.

■ Users frequently ignore the harm their clandestine use of service can cause them. Therefore, it is a good measure to disseminate these disadvantages.

■ Before suspending connections look for mechanisms to incorporate clandestine users as your clients.







## 2

# Prevent and Fight Clandestine Connections

### 2.1. What can you do to prevent clandestine connections?

(12) To get a formalized service, potential clients usually face a number of uncomfortable and fastidious obstacles due to which they prefer to connect in a clandestine way.

#### PROBLEMS A POTENTIAL CLIENT HAS TO FACE

- Too much time investment. It is necessary to go to EPS offices several times to complete the procedures for the new connection.
- Overcome many bureaucratic obstacles at the EPS.
- Submit documents that are hard to get or do not exist (property title or rent contract)
- Get municipal permits to break pavements and sidewalks.
- The rights for their connections are in many cases overcharged
- There are few or no credit options.
- Sometimes clients have to get their materials themselves.

(13) Directly reducing, simplifying or removing these obstacles contributes to reducing clandestine connections. Although it is true that some requirements cannot be skipped, some aspects can improve considerably, depending on each EPS's situation.

### PROPOSALS

- Approach each feasible user and offer installing him/her a connection.
- Offer users installation prices which fit with real additional costs for the EPS.
- Offer ample chances to pay in installments.
- Prevent or decrease unfruitful visits of users to EPS offices to pursue procedures.
- Make requirements to become a user more flexible.
- Support users in their procedures



Figure 2. Users involved in a procedure at the EPS.



- For more details see:  
EPS COMMERCIAL MANAGEMENT SERIES, MODULE N°3: SALE OF NEW CONNECTIONS

### RECOMMENDATIONS

## 2.2. How to regularize already existing clandestine users?

(14) To regularize a clandestine connection, you need to distinguish **two** cases: connections which comply and do not comply with minimum technical requirements established by the EPS.

(15) Each EPS has a minimum set of established **technical requirements** for a drinking water and sanitation household connection. These are to be complied with either formally or through regulations or guidelines or as technical specifications used for preparing projects or executing connections.

(16) Such minimum requirements specify construction materials (types, qualities and sizes), constructive procedures, installation modality and other elements that define construction and operation characteristics. This module is not aimed at appropriately making a household connection. However, we think it is useful to include a brief summary of the technical specifications that have been approved at EPSEL S.A. for drinking water and sanitary sewerage household connections as referenced in **Annex N°4**.

(17) Depending on these technical requirements, the EPS will evaluate the household connection to verify if it is technically correct or not. This evaluation will have to be undertaken by EPS operators who are qualified to do so, preferably from the connections department.

(18) We will analyze recommended actions according to different cases:

#### CASE 1: A CONNECTION THAT COMPLIES WITH REQUIREMENTS

*This complies  
with  
requirements*



Figure 3. Drinking water connection scheme according to EPS internal regulations

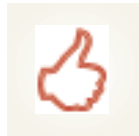
(19) In this case the EPS declares that the household connection has been made correctly, **complying** with every necessary requirement and that it is in good state of repair.

(20) Most of these cases occur when the connection corresponds to EPS supervised work that had been requested to the EPS which, after a long time without use, is put to operate in a clandestine way (See subsection 2.1 Under-registered Connection).

In this case the connection is very likely to have been correctly made.

(21) In spite of being strictly clandestine in its making and in its use, a connection may also fulfill every characteristic of EPS regulations. However, these are less frequent cases.

(22) In these two situations, regularizing is quite simple. Users need to fill-in the necessary documents (See **Annex N°1**) and are directly incorporated as if they were just starting to receive the service.



■ The rights and recovery fees charged by the EPS can be divided in installments along a reasonable term to facilitate incorporating clients.

#### RECOMMENDATIONS

### CASE 2: THE CONNECTION DOES NOT COMPLY WITH THE REQUIREMENTS

#### First Case:

(24) The connection does not comply with EPS requirements because it lacks some accessories and parts. This happens when clandestine users omit some parts because they do not consider them essential and also because they are aware about committing an undue action and hence try to hide it. For example, in drinking water clandestine connections it is typical to find connections without a meter-holder box, accessories or passage valves which should be included. Therefore, it is an **incomplete** connection. If these connections are to be regularized, they have to be completed (usually with the inspection box, passage valves and accessories).

#### Second Case:

(25) It can also happen that used accessories and materials are of a bad quality or are deteriorated or that the installation workmanship was deficient, thus showing visible construction defects. This connection is considered **anti-technical**.

If an anti-technical connection is to be regularized, it is necessary to partially or entirely replace the components.

*No cumple con los requisitos*

(26) There are usual cases in which **both** deficiencies exist, that is, an incomplete and anti-technical connection. There are several options to solve the problem and both the EPS and the user can adapt the clandestine connection. We point at the following possibilities:

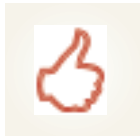
- If **users** have enough income, they will be charged for any lacking materials, labor and supervision (through credit, if necessary).
- If the EPS has the capacity to assume labor and supervision, the user will be charged only for the lacking materials (through credit, if necessary).
- If the user and the EPS do not immediately count on necessary economic resources, the connection will be regularized and the regularization file includes a commitment by the user of completing the connection within a defined **term** with EPS supervision which, if not complied, would lead to service cut off.

	I		II		III	
COST ITEMS:	USER	EPS	USER	EPS	USER	EPS
MATERIALS	X			X	X	
LABOR	X			X		X
SUPERVISION	X			X		X

Figure 4. Investment is assumed by the client, EPS or both. Costs assumed by the EPS are recovered through installments charged in the monthly invoices.

(27) No matter which are the technical arrangements, it is important for the EPS to start billing so it stops losing **income**.

(28) Detailed steps towards implementing a Massive Regularization Program of Clandestine Users is described in **Chapter 4**.



■ The rights and recovery fees charged by the EPS can be divided in installments along a reasonable term to facilitate incorporating clients.

RECOMMENDATIONS

### 2.3. When should clandestine users connected to provisional networks be regularized?

(29) Provisional networks are those which have been built temporarily and without previous knowledge by the EPS, **not having been approved** by the company. These cases generally occur due to a lack of investment by the EPS to expand network coverage. They are justified due to the fact that marginalized urban population needs are neglected.

(30) Provisional networks **do not comply** with EPS technical requirements: they are networks which diameter is less than three inches and which installation depth is less than 0.60m. They neither have a design or a technical file approved by the EPS. Household connections to provisional networks are called Provisional Connections.

(31) One of the most frequent provisional connection cases can be seen in areas supplied by **public fountains**. The piping that supplies the fountain operates as in a household connection, but it is much longer. Due to its size, this piping becomes a “provisional distribution network” for all those properties placed along it and they get supplied through provisional connections in a clandestine way.

(32) When the EPS finds such a case, it must decide if it is convenient to regularize said beneficiaries as provisional users or to suspend and close the household connections.

(33) It is recommended to regularize provisional connections to decrease unaccounted-for-water as well as clandestine connections, increasing coverage and collection for service, when:

- Service pressure and continuity are acceptable;
- Size and diameter of provisional networks ensure system functionality until definitive networks are installed;
- These connections do not affect formal users in neighboring sectors or EPS public fountain service;
- There are many families who need to be supplied by the service and hence it is socially impossible to suspend these connections; and
- The EPS is not expected to be able to invest in replacing these networks by definitive networks in the short term.

(34) The regularization is not recommended when:

- There is an alternative for a quick formal solution with technical feasibility of networks and a viable way for financing (EPS, benefitted users, Municipality, International Cooperation, etc.).
- Any of the abovementioned conditions for regularizing does not occur.

Provisional network regularization is a very special case which needs compliance with all these requirements.

## 2.4. How are provisional connections regularized?

(35) Provisional connections are regularized through an authorization granted by the EPS based upon a **commitment with the dwellers** which basically establishes:

- The maximum term during which the systems can be used.
- The preparation of the technical file by the users.
- The search for funding and the execution of definitive works by the users advised and accompanied by the EPS.
- Payment for the services supplied by the EPS.

(36) Regularizing a provisional connection is different from that of a common clandestine connection, as follows:

- A** Service installation and use term.
- B** Demandable service quality.
- C** Tariff.

**A** Regularization of provisional connections is to be done within a specific term and the idea is to technically adapt them to EPS standards in the future. Terms depend on each EPS policy and the specific agreement between company and user.

**B** Provisional connection users are warned before they sign the commitment about the conditions of the service they will receive. Since these water networks are usually of a lower diameter than 4 inches, the service quality -pressure and continuity- is generally lower than the usual.

**C** At the same time, a consumption tariff assigned by the EPS is agreed. The tariff for provisional connections -as well as that of tank trucks- is not subjected to the SUNASS tariff regime and shall be defined according to service quality.



## 2.5. What to do with clandestine users who do not want to regularize?

(37) According to experience, based on regularizing thousands of clandestine and sub-recorded connections, rejection of users to regularization is infrequent. In the end, the only alternative to regularizing a clandestine connection is suspending it.

Suspension: in the case of suspension due to debt, the whole connection is removed except for the clamp. The latter is also taken out if the suspension is due to a clandestine action.

(38) This is no satisfactory alternative for the EPS or for the user. The user loses his/her investment and, by the same token, such an indispensable service. For the EPS, the situation is even more serious because on the one hand it loses a client and on the other hand it has to be aware that the lost user will get the water service in some other way.

■ It is totally mistaken to consider that after a connection suspension the EPS will have one clandestine user less or a significant saving of water. One cannot live without water. Therefore, the same user will find the way to get supplied with water through a new clandestine connection, right-of-passage, hoses or some other way. Only in very few cases and special conditions will users find a viable alternative for the EPS water, such as their own well. It is even less likely that this clandestine user will go to the EPS office to request a new connection after suspension at a price that will have significantly increased due to the suspension.



Figure 5. Clandestine connection cut

(39) A very efficient way has been found **to avoid** definitive suspension. The last visit by the person in charge of regularizing the service accompanied by one or two suspension operators has very good effect to show there is likelihood of a real threat and earn some credibility. No user will insist on ungrounded pretexts about not regularizing in this last chance. As an anecdote, we mention owners who were supposedly in the United States or in Germany but appeared in just a few minutes to regularize their connection.

(40) The connection should be suspended only in extreme cases so as not to lose **credibility** as EPS and to avoid fostering massive clandestine connections. Later, when said suspension occurs, it is necessary to regularly supervise said user who will very likely become reconnected.

## 2.6. What results can be obtained?

(41) The results that can be obtained with the proposed strategies vary and very much depend on EPS local conditions. They mainly depend on the number of clandestine users and their readiness to regularize.

(42) Some indicators which coincide with high clandestine connection rates are:

- Large difference between network coverage and real connection coverage.
- High rates of unaccounted-for-water.
- Few new connections made.
- High EPS side costs.
- Very difficult procedures to get new connections.

(43) The readiness of clandestine users to regularize depends much on:

- The quality of service provided by the EPS. A good service facilitates regularization.
- The cost of regularizing and if there is payment by installments.
- The bureaucratic procedure required to regularize.
- The credibility of the EPS concerning a connection suspension if not regularized.

(44) The following are results EPSEL had after the "10.000 Connection Plan" (Agreement GTZ/PROAGUA – EPSEL S.A.). They show the impact that can be obtained.

(45) The number of clandestine connections that have been identified and regularized in approximately one year is comparatively shown below:

	January 2002 December 2002	August 2003 May 2004 (As a result of the 10.000 connection plan)
IDENTIFIED CLANDESTINE USERS	485	6134
REGULARIZED CLANDESTINE USERS	82	5929

Figure 6. Impact of the 10,000 Connection Program

(46) As we can see, very significant results can be obtained. Monthly billing of clandestine users incorporated in the "10.000 Connection Plan" is **66.800 Nuevos Soles**, which approximately means 800.000 Nuevos Soles per year.

(47) On the other hand, in the case of Chiclayo, the direct cost for the EPS was only **5.00 Nuevos Soles** per regularized connection, the remuneration paid to the person in charge of regularizing. This amount was totally covered by the recovery collection, which shows that this measure does not require additional resources.

(48) The 10.000 Connection Plan also attracted **additional** under-registered and feasible users besides clandestine ones. For more information about their incorporation see Module N°1 "Cadastre Dynamic Updating" and Module N°3 "Sale of New Connections"

## 2.7. Are regularized clandestine users bad payers?

(49) Collection rates depend on collection system, client service and service provided. Evidently, a good quality of these aspects contributes to good results. A regularized clandestine is not necessarily a natural delinquent payer. This can be demonstrated by comparing EPS acid collection indexes in 2002 with the acid collection index of clandestine users incorporated to the EPS through the 10.000 Connection Plan:

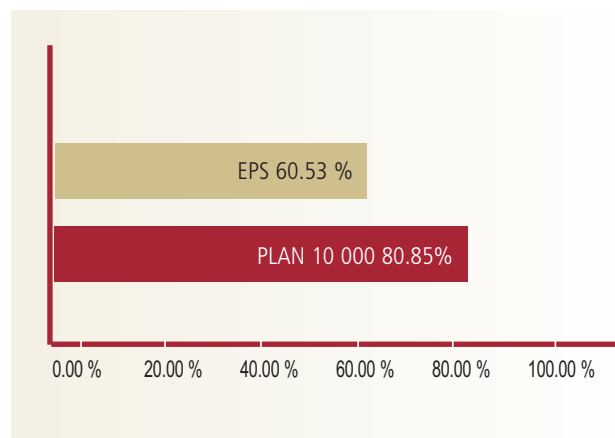


Figure 7. Regularized users' payment rate

(50) As you can see, clandestine users incorporated by the 10.000 Connection Plan are good users. They are **punctual** in their payments in spite of the fact that they had not any relationship with the company before. Therefore, we have not been able to prove right the prejudice that clandestine users are criminals by nature.



#### SUMMARY



#### QUESTIONS



#### TASKS



#### RECOMMENDATIONS

■ To prevent clandestine connections, formal access to services must be facilitated and promoted by reducing costs and bureaucracy.

■ Users need the service and the EPS should charge for it. The regularization is the best solution for both parties, suspension is not.

■ What is the percentage of service applications that result in a formal connection in your EPS? What happens with the others?

■ What massive clandestine detection system do you have?

■ Verify side costs for a new connection at your EPS and compare them to prices in the competitive market.

■ Follow-up notified clandestine users and verify how many of them are clients now.

■ Check where those who are not users still get water, and who has been identified and notified.

■ Start massive clandestine identification and regularization programs.

■ Start client training programs looking for them where they are: in their homes and sell them a product they can pay providing them with credit.





# 3

## Massive Clandestine Regularization

### 3.1. Implementation Process

(51) The implementation of “Massive Clandestine Regularization” refers to institutionalizing a system and integrating it in the EPS commercial area. The heart of regularization is made up by EPS service promoters and sellers that approach clandestine users. They are called regularization agents (regularizadores, in Spanish). They mainly work in the field and closely coordinate with their office colleagues.

(52) Regularization agents represent the EPS image before users. Therefore this team must be **selected and trained** to respond to user questions. Regularization agents must have the capacity of persuading clandestine users to formalize their situation, always showing them the advantages of being formal clients and offering them EPS facilities for their regularization.

(53) The regularization process is dynamic and requires EPS personnel to work orderly and as a team. The following scheme shows the flow which was successfully applied when the 10.000 Connection Plan was implemented.

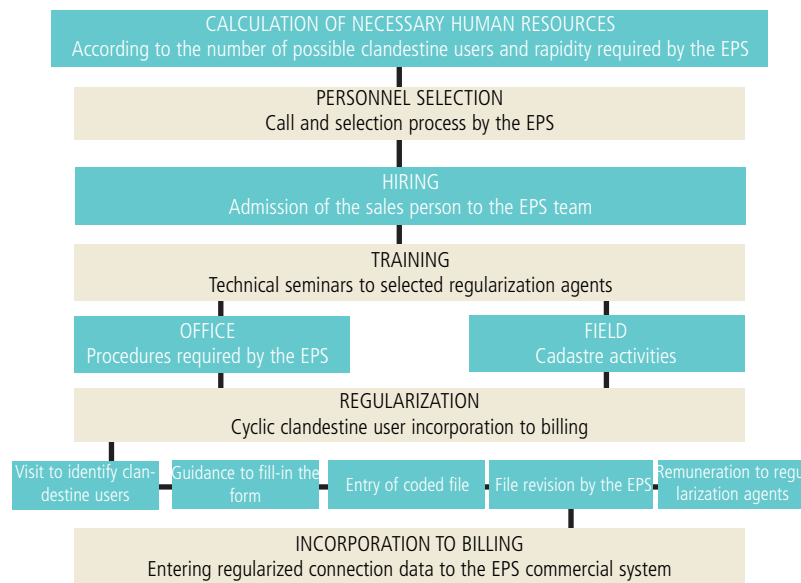


Figure 8. Implementation flow: massive regularization of clandestine users at the EPS

(54) This process starts when a significant number of clandestine users is identified (through a cadastre, cadastre sweep, or the procedure proposed in module N°1 – Cadastre Dynamic Updating.)

### 3.2. Calculating the Necessary Human Resources

(55) The optimum number of service regularization agents is determined according to the following indicators:

- EPS clandestine connection indexes.
- Number of connections.
- Impact to be obtained in a certain term.
- Current operational personnel devoted to incorporating new clients.

(56) As a reference, an efficient regularization agent produces **75** regularizations per month.

REGULARIZATION AGENT CONTRACT	YIELD
Fixed salary	Minimum 20, Maximum 30
Variable salary	Minimum 50, Maximum 85

*Figure 9. Regularization agent yield according to work contract types in the EPSEL S.A. 10.000 Connection Program in Chiclayo*

(57) The EPS economic situation does not influence the number of regularization agents, because payment for service regularization agents **is covered** with the money obtained from recovery collection for services clandestine users have had for a certain period of time. Besides, the company gets some profit. In other words, service regularization agents “pay themselves.”

### 3.3. Personnel Selection

(58) When the necessary service regularization agent number is already defined, there should be a personnel screening stage. Service sales people should be **carefully** selected, making sure they have sufficient capacity and experience to entirely fulfill program expectations.

(59) **Publicity ads** are advisable to call for candidates to Service Regularization Agent positions in the client service section or at collection tellers for at least two weeks (those with the largest flow of clients). The ads should also be placed in front of companies that sell by delivery. At the same time, recommendations can be requested from these companies. In Peru, door-to-door sale is very well-known and is characterized by a high turnover, so there is usually no problem with finding a good group of capable and interested people.

(60) The profile sought for regularization agents is that of a door-to-door **salesperson**, who knows the area. Experience in the sanitation sector is not an indispensable requirement because the available personnel are unlikely to have it and to have the mentioned profile at the same time.

(61) The following requirements should be taken into account:



Priority	Requirements	Rationale	Verification modality
1	Broad experience in door-to-door sales (home appliances, books, mobile phones, etc.).	This is the call objective	Verified CV and personal interview
2	Being honest and efficient	This guarantees success and prevents problems with clients (bribes)	Call former employers
2	Time availability	This is usually a full-time job	Personal interview
4	Good communication skills and appearance	Since he/she is in direct contact with clients, he/she represents the EPS image	Personal interview
6	Knowledge of the type of intervention areas (shanty towns, human settlements, etc.)	It is important to know the type of clients, as well as the areas due to security reasons	Verify CV
7	Experience in the sanitation sector.	Although not indispensable, this could facilitate training	Verify CV and personal interview
8	Own transportation	This facilitates field work, but it is not indispensable	Personal interview

Figure 10. Criteria for personnel selection.

(62) Being a male is not required. We have been able to demonstrate that **women can** equally perform and handle dangerous situations -angry users or criminality in marginalized urban zones- very proficiently.

(63) The department **head** who will assume responsibility for the job -Cadastre Unit or any other area charged with it- will need to participate in selecting the personnel.



Figure 11. A peddler becomes an EPS regularization agent

### 3.4. Training to Regularization Agents

(64) The selected regularization team will be trained through technical seminars by EPS personnel. The training will basically focused in specific complementary activities required by the EPS **sales process** and will be done both at the office and in the field.

Annex N° 3 shows a methodological script for the sales personnel training.

#### *Training at the Office*

(65) This part of training is in charge of the **office personnel** and aims at generating the following skills and knowledge:

Correctly filling-in the regularization form with the requirements demanded by the EPS to formalize clandestine users:

- Service regularization application.
- Sworn statement.
- User commitment.
- Water and/or sewerage service contract.
- Agreement on payment in installments to regularize services.
- Visit certification

#### Cadastre Activities:

- Reading of cadastre maps.
- Display of sectors and cadastre codes.
- Other internal activities related with operational work at the EPS.
- Knowledge of services supplied by the EPS, knowledge of treated water cost, justifying payment for supplied services.

#### *Training in the Field:*

(66) This training will be in charge of EPS field personnel that have been working in identifying clandestine users. Training will be developed in a locality sector. This will facilitate learning of the following subjects:

- Quick and appropriate orientation in the zone.
- Interpretation of zone cadastre maps.
- Localization of properties with clandestine connections that have not been identified yet.

### 3.5. Service Regularization

(67) Clandestine service regularization is a cyclic process started with the visit to the clandestine user homes and ending with incorporating clients to EPS billing. The service regularization agents' terms of reference are detailed in **Annex N° 2**. They have a non-personal service contract.

(68) We now describe the regularization process both inside and outside the EPS:

(69) The previous stage and its fundamental pre-requirement is to identify properties that have direct access to EPS water or sanitation networks without officially having a household connection. This information must be available as lists for each sector. Code, address and owner name should be specified in the property cadastre. This should also be complemented with cadastre location plans where cadastre codes for these properties are included.

(70) The service regularizations agents' supervisor requests identified clandestine user lists and cadastre map for the zone from the Client Cadastre Office.

The identification task is not part of the seller/regularization agent job.

(78) Before providing regularization agents with data, we need to know if it has been compared with the technical cadastre information -on water and sanitation networks- and EPS client cadastres. Additional time needed for this step will depend on available cadastre quality and format.



Figure 12. Regularization agents visit the property of a clandestine user

## Regularization

(79) The visit takes place at an appropriate time of the day. Besides wearing visually distinctive clothing -cap and vest-, each regularization agent should be duly identified with a credential to be able to accredit their work as EPS representatives.

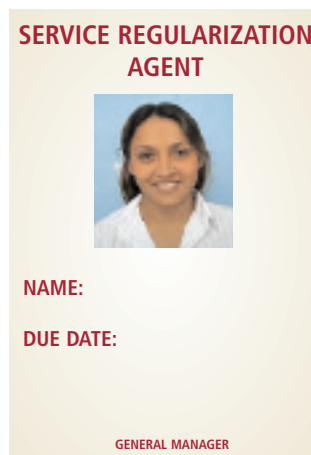


Figure 13. EPS worker credential

80) At this stage, regularization agents explain dwellers that the EPS knows about their illegal situation and that there are two options to solve their problem:

### Option 1: Service Regularization

(81) The most sensible way is formalizing the service. To do so, the regularization agent will explain the facilities EPS grants.

- Buying a formalized and adequate connection.
- Terms and commitments for a provisional connection.
- Payment in installments.

## Suspension

### Option 2: Connection Suspension

(82) This option must be avoided as much as possible, since it implies total loss of investment made by users in their household connection.

#### REGULARIZATION OF CLANDESTINE USERS DETECTED BY REGULARIZATION AGENTS

There are many cases in which regularization agents observe **additional** clandestine connections besides those identified by the EPS. Oftentimes, they find in the field clandestine users who have not been identified yet or they contact users who are have regularization procedures underway at EPS offices.

In these cases, formalizing the service, the regularization agent should provide the Client Cadastre Office with information on "clandestine users found outside the list" so the **authenticity** of the information is verified. If the cadastre inspection is favorable, the regularization agent should get an additional bonus for having correctly identified clandestine users and the need right to regularize them. A compensation of S/.1 to S/.2 soles is recommended. Compare Module N° 1, Cadastre Dynamic Updating.

### 3.6. Guidance to Fill-In the Regularization File

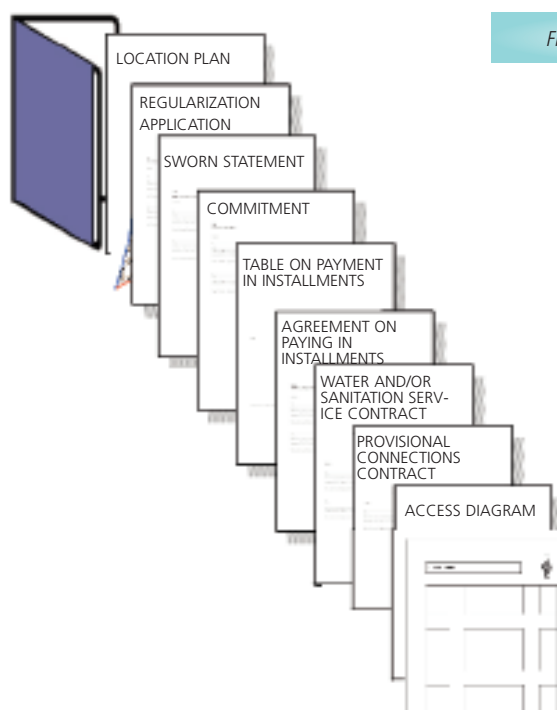


Figure 14. Forms in the regularized user files

■ Users ignore type of documents EPS acknowledges to certify property.

2 **Facilitating** users procedures at the EPS that are generally seen as “cumbersome” and that will now take place at their own home with more personalized service.

### 3.7 Coded File Entry

(86) Regularization agents submit the files of properties under regularization to the Client Cadastre Office, requesting the allocation of a *Cadastre Code* for the property.

(87) The cadastre code is a basic requirement for regularization and correct and rapid assignment will very much depend on the user’s property ownership, accreditation documents and the diagram to access the property as drawn by regularization agents. This is why it is fundamental for regularization agents to be **well trained** to rule out any mistakes in the field and prevent additional visits by cadastre inspectors to the property.

### 3.8. File Revision by the EPS

(88) The files which the service regularization agent deems concluded will be submitted to the Sales Supervisor who will revise each one of them carefully. He/she will also process the files at the EPS controlling revision and expediting along all the pertinent instances according to the procedure that corresponds to a new user.



Figure 15. Sales supervisor

(89) When the file has been duly approved in all the offices, it goes back to the regularization supervisor who will confirm regularization agents about the **success** of their work.

(90) In case the file is **incomplete** -it does not have the 7 ticks in the revision sheet- it has to be returned to the service regularization agent so that he solves the inconveniences.

(91) To revise the files, the supervisor will have a revision sheet where he/she will mark the documents that have been correctly prepared and will include the pertinent observations for incomplete or badly prepared ones.

The recommended revision sheet has seven items to be approved. The approval sign is OK. Seven OKs means the file is complete and approved.

FOLIO DE REVISIÓN DE EXPEDIENTES		
Consideraciones	OK	Observaciones (En caso de no ser OK)
1) Existencia de documentación de acceso al	✓	Confianza del Teniente Coronado no es suficiente.
2) Existencia de documentación de acceso al	✓	Confianza del Teniente Coronado no es suficiente.
3) Existencia de documentación de acceso al	✓	
4) Existencia de documentación de acceso al	✓	Diagrama de acceso no es suficiente.
5) Existencia de documentación de acceso al	✓	Diagrama de acceso no es suficiente.
6) Existencia de documentación de acceso al	✓	
7) Existencia de documentación de acceso al	✓	

Figure 16. The 7 ticks in the revision sheet

Note: the two most frequent errors are lack of a reliable document accrediting property ownership and inaccuracy of the diagram for accessing the property.

### 3.9. Regularization Agents' Remuneration

(92) The supervisor must have control of door-to-door sales results, which will allow calculating the monthly payment of service regularization agents.

(93) Liquidation will be done according to:

**A** The number of approved files.

**B** The number of clandestine users detected by the regularization agent.

(This payment will be made only in case the detected connection is effectively clandestine. If, for example it is simply rehabilitation, the payment will not be made).

(94) Based upon the Chiclayo experience we suggest that the payment per approved file be 8 Nuevos Soles. With this remuneration, the regularization agent covers his/her fares and can reach the minimum salary and even exceed it with a good yield. Very low remunerations are not recommended because they can give way to undesired discourse or attitudes (undue collection, etc.).

(95) Between 1 and 2 nuevos soles are proposed as additional payment for detecting a new clandestine user, since detection is a relatively easy job for regularization agents. In the Chiclayo pilot experience we have seen that clandestine users that are becoming regularized usually tell about those who are still clandestine.

### 3.10. Incorporation of Clandestine Users

(96) File data, once authorized by the EPS Commercial Division, are entered into the EPS **commercial system** (SICI or another), thus concluding the incorporation of new users in the billing, as a result of door-to-door sales.

### 3.11. Result Control

(97) The Regularization Supervisor is in charge of permanently monitoring personnel yield, billing evolution and collection efficiency of new regularized users.

(98) This process needs to be automated. It is therefore recommended to design and implement an I.T. application. This tool will facilitate data updating and follow-up corresponding to incorporated users who were formerly clandestine.



*Fig. 17: Monitoreo en gabinete.*

(99) The software will allow developing monitoring in the following aspects:

#### Identifying Clandestine User Follow-Up

It permits to see where regularization agents need to go and which clandestine users still need to regularize.

#### Control of Incorporated Users and Regularization Agent Yield

This routine allows supervisors to control incorporation of clandestine users as a result of service regularization agent work and thus evaluate the performance of each one of them. It also allows detecting strategy weaknesses and strength.

#### Regularization Agent Monthly Billing Control

It will allow measuring the growth of EPS billing and the program impact comparing it with former periods.

#### Regularization Agent Monthly Collection Control

Program benefits are shown by collection increase. Effectiveness of collection from the group of formalized users and EPS profits can be observed.

(100) Data monitoring provides the necessary information for clandestine massive regularization operations and points at adjustments to be made so that the strategy is ever more efficient and useful for the EPS.





#### SUMMARY



#### QUESTIONS



#### TASKS



#### RECOMMENDATIONS

■ Clandestine User Massive Regularization is done through promoters – sellers who are specially hired to this end.

■ The EPS economic situation does not hamper this intervention, because it is self-financed and generates additional revenues.

■ Permanent control helps us to adjust the strategy and the personnel to optimize regularization performance.

■ Did clandestine user successful regularization use to be remunerated before?

■ Which EPS professionals can assume the role of instructor / trainer in the office and which in the field?

■ Look for people who have experience in street selling in marginalized urban zones.

■ Provide EPS distinctive clothing such as vest and cap plus a badge with a photograph to back-up the salesperson authority.

■ Per-piece payments to regularization agents are much better.

■ There should be compensation per each approved procedure.

■ Women can also be very successful as regularization agent personnel even in difficult areas.

# Annexes

ANNEX 1	<u>Regularization File</u>
ANNEX 2	<u>Regularization Agent Contract Specimen</u>
ANNEX 3	<u>Methodological Script Specimen</u>
ANNEX 4	<u>SEDAPAL Technical Specifications on Drinking Water and Sanitation Household Connections</u>
ANNEX 5	<u>Module Planning Format (FPM, in Spanish)</u>

## ANNEX N° 1 Regularization File



All the documents required by the service vendor are here

Location Map Specimen  
Pedro Pablo Atusparia Shantytown - Sector IX EPSEL S.A.



## File Revision Sheet Specimen

DOCUMENTATION	OK	OBSERVATIONS (IN CASE THERE IS NO OK TICK)
Service regularization application		
Property title, rent contract, property title bill or other document that certifies property ownership.		
Technical regularization commitment		
Conventional or provisional water and/or service contract		
Agreement on paying in installments		
Access diagram (includes cadastre code)		
User certification of not having made any payment		

## Specimen of Certification on Not Having Made Payments to the Carrier

### Certification on Not Having Made Payments to the Carrier

I, \_\_\_\_\_ identified with  
DNI \_\_\_\_\_ domiciled at \_\_\_\_\_ P.J./Urb  
\_\_\_\_\_ certify I have not made any payment for any item to the Service  
Regularization Agent.  
Date: \_\_\_\_\_ Signature: \_\_\_\_\_

## Application Specimen

I apply for: ..... Service Regularization

Mr. (Ms.)

EPS COMMERCIAL MANAGER

Dear Sir (Madam),

I \_\_\_\_\_ identified by D.N.I.

\_\_\_\_\_ domiciled at \_\_\_\_\_

Street/Av. N° \_\_\_\_\_ P.J./Urb \_\_\_\_\_ owner/possessory

of the property I inhabit address you to state I know the EPS Drinking Water and Sanitation Service Supply Regulation issued by Superintendence Resolution N° 015-97-SUNASS, according to General Sanitation Law N° 26338, and to request:

New Connection or Connection Regularization (Cross the right answer):

Connection ☐ Drinking Water ☐ Sewerage ☐

SERVICE CLASS : Domestic/Commercial/Industrial/Provisional

BUILDING LOCATION: \_\_\_\_\_

AV/STREET : \_\_\_\_\_

URBAN D. S.T. KM : \_\_\_\_\_

DISTRICT : \_\_\_\_\_

BUILDING AREA : \_\_\_\_\_

This is what I request for the corresponding aims.

Chiclayo, \_\_\_\_\_

Name and Last Name

Attached:

( ) Copy of the Purchase Public Deed, or Public Registry Certificate, or Shantytown Municipal Resolution, or Property Title to be regularized, or Possession Certificate, or Rent Contract.

( ) D.N.I. or L.E. photocopy.

( ) Property location diagram.

( ) Water and/or sewerage .

( ) Invoice photocopy.

( ) Owner authorization in case of a tenant.

( ) Sworn statement.

( ) Agreement on paying in installments.

( ) Service supply contract.

## Sworn Statement Specimen

I hereby,  
.....  
Complete Name and Last Name  
.....  
D.N.I. / L.E.  
.....  
Building Address, Lot, Block of houses, Street Name, Shantytown, Urban Development and/or District.

Declare under oath that I am the owner and/or possessionary of the aforementioned property. I also commit to submit the following documents in a term no longer than 15 calendar days:

- 1st
- 2nd
- 3rd
- 4th
- 5th

Chiclayo, \_\_\_\_\_

\_\_\_\_\_  
Signature

Law N° 25035 (Article 8) on Administrative Simplification



## Commitment Specimen

I ..... domiciled at..... shanty-town....., as ..... (Owner or possessionary), identified by DNI N° ....., hereby commit to pay -in a term of no more than ..... days- for the following:

■ Water Inspection Box and necessary cement

■ Accessories (Passage Valve, etc.)

The installation of the complementary parts to the aforementioned connection will be made under the supervision of EPS personnel within the referred term.

In witness of the acceptance by the parties of their mutual commitment I freely and voluntarily hereto stamp my hand and seal.

Chiclayo,.....

Name: .....

DNI: .....

## Drinking Water and/or Sanitation Service Contract Specimen

### CONTRACT N°

Know all men by this private agreement on the SERVICE CONTRACT entered into on the one hand and as grantor by the EPS with R.U.C. N°....., domiciled at, represented by its General Manager ....., identified by DNI N° ..... hereinafter THE COMPANY and, on the other hand, Mr./Ms....., domiciled at ..... N° ..... Urban Development / Shantytown ....., in the District of ....., Province of ....., Department of Lambayeque, hereinafter THE CLIENT, under the following terms and conditions:

1.THE COMPANY grants THE CLIENT supply of drinking water and/or sewerage services, which contract is entered into for an indefinite time, except for the provisional connections which shall be regularized when THE COMPANY so determines. The rights and duties are included in the Drinking Water and Sanitation Service Provision Regulation, which the user obliges to comply. The connection characteristics correspond to the attached cadastre card, a service which THE COMPANY will provide at the following address:

.....

2.THE CLIENT commits to pay the company the corresponding value for the consumption of drinking water and supply of sanitation services on a monthly basis an amount established through meter reading or, if not, the average consumption of the last six former valid readings or else consumption assignment.

3.THE COMPANY may suspend services to THE CLIENT with no prior notice or intervention of any authority, in case he does not pay the invoices for two consecutive months. It will also charge for suspension and restoration cost. THE CLIENT needs to pay his obligations to be entitled for service restoration.

Likewise, he/she shall pay any interests for delays and expenditures derived from unpaid regulations within due term, applying the default interest rate foreseen at the Domestic Currency Lending Rate as fixed by the Central Reserve Bank of Peru.

4.Once six months or more elapse without THE CLIENT paying the billing, THE COMPANY may remove the entire drinking water or sanitation connection, which means the loss of every right THE CLIENT may have over the connection.

5.THE CLIENT may request in writing temporary services cut off when the property is uninhabited. If THE COMPANY does not receive said request, it will charge the minimum consumption or the consumption assignment of the corresponding category.

6.THE CLIENT is obliged to facilitate the monthly reading of meters. In case THE COMPANY demonstrates that the meter does not work normally or that it works with impediments, the average of the last six valid readings will be applied.

7.It is forbidden to practice any diversion of the connection without express authorization by THE COMPANY. Breach of this condition will mean the application of provisions contained in the General Regulation for Service Provision and any Law on the matter, causing the immediate closure of services notwithstanding the pertinent legal actions.

8. THE CLIENT is responsible for the meter THE COMPANY installed in the connection, in case of robbery or suspicious deterioration.

9. THE CLIENT is forbidden from tampering with the meter and drinking water and sanitation household connections. Breach of this provision will lead to the sanctions contemplated in the Drinking Water and Sanitation Service Supply Regulation, notwithstanding any collection for restoring rights or unbilled consumptions at current prices.

10. The rehabilitation of drinking water and sewerage services is forbidden without prior payment. Breach of this provision will be sanctioned according to the Service Supply Regulation.

11. THE CLIENT is forbidden from trading with the household connection water. Drinking water supply is granted as non-transferable to each client. The breach of this provision will be sanctioned according to the Drinking Water and Sanitation Service Supply Regulation.

12. Every client is obliged to take care of, repair and/or maintain the internal installation so as to prevent water waste and, consequently, excess payment.

13. As supply holder, THE CLIENT is responsible of every obligation derived from the contract before THE COMPANY.

14. According to Article 24 of Law 26338, "General Sanitation Service Law", the invoices issued by THE COMPANY imply judicial execution. In this regard, THE COMPANY will file the corresponding judicial action in case services are not paid.

The user will have to assume the expenditures and commissions caused by said action, plus agreed interests and procedural costs.

**NOTE:** every change of use (for example, from Industrial to Domestic, from Domestic to Industrial, from Domestic to Commercial or Commercial to Domestic, etc.) shall be communicated in writing to THE COMPANY within 24 hours of having occurred.

THE COMPANY will only acknowledge the tariff change on the second month after the corresponding application submission date.

Signed by both parties in the locality of ..... on ..... month  
..... year.....

EPS

CLIENT

D.N.I. ó L.E:.....

## Specimen of Service Contract on Water and/or Sanitation Provisionally Installed Connections

In Chiclayo, on \_\_\_\_\_ month \_\_\_\_\_, at \_\_\_\_\_  
hours, with the attendance at the Commercial Division premises of the EPS Commercial Manager  
\_\_\_\_\_ as its representative, identified by DNI N°  
\_\_\_\_\_, and the owner or landlord of the Property, Mr. or Ms.  
\_\_\_\_\_ identified by DNI \_\_\_\_\_,  
located at \_\_\_\_\_ shantytown/UPIS  
\_\_\_\_\_, same who reached an agreement in the following terms:

**FIRST:** That the EPS is a Sanitation Provider Enterprise aimed at Generating, Operating, Maintaining and Managing Drinking Water and Sewerage Services according to General Sanitation Law N° 26338 and its regulation, Supreme Decree N° 09-95-PRES.

**SECOND:** Any individual or corporation is entitled to receive services supplied by the EPS within the levels and technical conditions (pressure, continuity, etc.) which said services are applied in that area, according to stipulations in the General Sanitation Law and its Regulation, as well as in Article 23 of Company Regulations.

**THIRD:** Provisional Connections are those which due to their technical characteristics cannot be permanent but which permit the EPS to provide a temporary service in special conditions for a limited time (Title XII, Art. 51, Title XVI of the Drinking Water and Sanitation Service Supply Regulation, Superintendence Resolution N° 015-97-SUNASS-INF.).

**FOURTH:** Aiming at regularizing provisional connections, the parties interested in using the services commit to request its feasibility and definitive project from the company's competent areas, as well as to seek financing for their execution in a term no longer than 12 months. The provisional connection is installed or will be installed at.....

**FIFTH:** The EPS commits to supply temporary Drinking Water and/or Sanitation Service for the referred use with the maximum term mentioned in the abovementioned clause and, on the other hand, the temporary user commits to punctually pay the monthly consumption invoice.

**SIXTH:** If the temporary user does not comply with service payment, the Provider Enterprise will apply the sanction foreseen in the General Sanitation Law and its regulation, as well as in Company regulations (service cut off or connection suspension according to due months).

**SEVENTH:** Once the term established for regularization elapses, if technical and administrative requirements are not complied with, the Company will suspend the mentioned service and resolve the contract herein.

**EIGHTH:** The contract herein is valid for twelve (12) months and can be renewed when due to exogenous conditions the term has not been complied with.

EPS Commercial Manager

Property Owner or Landlord

## Agreement Specimen N°

Heading: \_\_\_\_\_  
Reference: \_\_\_\_\_  
Entered into on one the hand by the EPS .....; hereinafter "THE ADMINISTRATION"  
And Mr./Ms. \_\_\_\_\_ DNI: \_\_\_\_\_  
Domiciled at: \_\_\_\_\_, hereinafter

"THE USER," who agreed on the following terms:

1. The USER commits to pay the liquidation amount in \_\_\_\_\_ successively monthly installments as duly authorized by the ADMINISTRATION, same which be billed in his/her water and sanitation service invoices.
2. Delay in paying one installment will cause drinking water service cut off without prior notice.
3. The USER shall pay the corresponding service restoration right to get the service restored.
4. Default in paying two consecutive installments allows the ADMINISTRATION to proceed to the permanent suspension of the water service, removing all the installed materials notwithstanding pursuing collection by coercive means.
5. No other application for water, sewerage or meter connection in any other property will be accepted from the USER who incurs in default stipulated in item 4 until he/she regularizes his/her former commitment.
6. The same procedure as in the former items will be followed with the monthly payment for water consumption.

### PAYMENT IN INSTALLMENTS

1	INSTALLMENT N°	AMOUNT S/.
2		
3		
4		
5		
6		
7		
8		
9		
10		
TOTAL		

Commercial Manager

Client

Chiclayo, \_\_\_\_\_

Name:

DNI:

Service Regularization Agent

## Clandestine User Payment of Regularization Rights Payment in Installments Chart (1/2" Water Connection)

Shantytown 3 months	Amount	Down Payment	Balance	Balance									
				1	2	3	4	5	6	7	8	9	10
W / S	80.40	18.08	64.32	64.32	32.16	21.44	18.08	12.88	10.72	9.19	8.04	7.15	6.43
Water	51.90	10.38	41.52	41.52	20.76	13.84	10.38	8.30	6.92	5.93	5.19	4.61	4.15
Sewerage	28.50	7.70	22.80	22.80	11.40	7.60	5.70	4.58	3.80	3.26	2.85	2.53	2.28

Urban develop- ment 6 months	Amount	Down Payment	Balance	Balance									
				1	2	3	4	5	6	7	8	9	10
W / S	285.80	53.16	212.64	212.64	106.32	70.88	53.16	42.53	35.44	30.38	26.58	23.63	21.28
Water	179.70	35.94	143.76	143.76	71.88	47.92	35.94	28.75	23.98	20.54	17.97	15.97	14.33
Sewerage	86.10	17.22	68.88	68.88	34.44	22.96	17.22	13.78	11.46	9.84	8.61	7.65	6.89

Clandestine Users pay for restoration and recovery rights.

## Clandestine User Payment of Regularization Rights Payment in Installments Chart (3/4" Water Connection)

Shantytown	Amount	Down Payment	Balance	Balance									
				1	2	3	4	5	6	7	8	9	10
W / S	168.80	32.16	126.64	126.64	64.32	42.88	32.16	25.73	21.44	18.33	16.08	14.25	12.86
Water	103.80	20.76	83.04	83.04	41.52	27.68	20.76	16.61	13.84	11.88	10.38	9.23	8.38
Sewerage	57.00	11.40	45.60	45.60	22.80	15.20	11.40	9.12	7.60	6.51	5.70	5.07	4.58


Urban development 6 months	Amount	Down Payment	Balance	Balance									
				1	2	3	4	5	6	7	8	9	10
W / S	531.60	106.32	425.28	425.28	212.64	141.76	106.32	85.06	70.88	60.75	53.16	47.25	42.53
Water	359.40	71.88	287.52	287.52	143.76	95.84	71.88	57.50	47.52	41.07	35.94	31.95	28.75
Sewerage	172.20	34.44	137.76	137.76	68.88	45.92	34.44	27.56	22.96	19.68	17.22	15.31	13.78

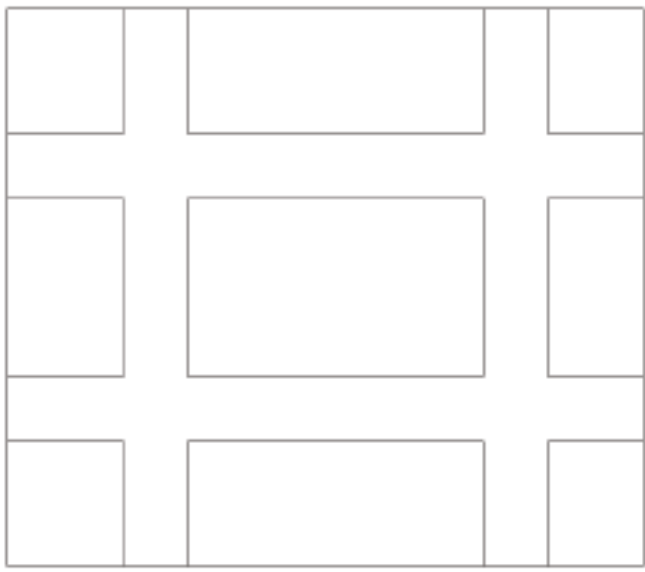
Clandestine Users pay for restoration and recovery rights.



## Access Diagram Form

CÓDIGO FACTIBILIDAD






NOTA :   • Indicar Lote o número antes y después  
           • Indicar medida de esquina más próxima

ZONA : .....

DISTRITO : .....



DIRECCIÓN GENERAL DE EPIDEMIOLOGÍA Y CONTROL INFECCIOSO

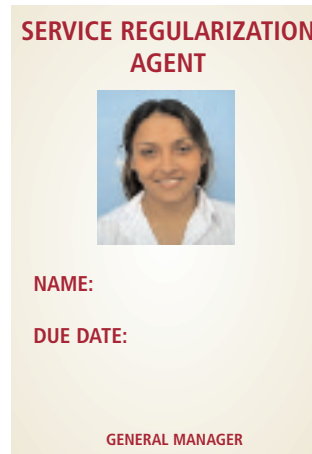
PLANO DE UBICACIÓN

UBICACIÓN:

FECHA:

OTRO:

### EXAMPLE OF BADGE WITH PHOTOGRAPH



### EXAMPLE OF VISIT CERTIFICATION



**VISIT CERTIFICATION**

Mr./Ms ..... , EPS Service Regularization agent has visited  
Mr./Ms. .... at Shantytown/UPIS  
..... so as to regularize his/her connection of  
.....

Observations: .....

Date: Chiclayo, .....

Service Regularization Agent ..... User .....

## ANNEX 2: Regularization Agent Contract Specimen

### GENERAL MANAGER CONTRACT NUMBER NON PERSONAL SERVICE CONTRACT

Known by all men the Non Personal Service Contract entered into on the one hand by EPS, identified by R.U.C. N° ....., domiciled at ....., represented by its General Manager ..... identified with D.N.I. N°....., hereinafter THE COMPANY and, on the other hand, Mr./Ms. .... domiciled at ..... N° ..... Urban Development / Shantytown ..... in the District of ..... Province of ....., Department of Lambayeque, hereinafter THE CONTRACTED PARTY, who agree on the following terms and conditions:

#### FIRST CLAUSE: BACKGROUND

THE COMPANY is the ..... Sanitation Provider Enterprise, owned by the municipality in charge of producing, generating, distributing and maintaining the sanitation services within the jurisdiction of the ..... department, an operation developed within the scope of Law N° 26338 – General Sanitation Law and its Regulation, Supreme Decree N° 09-95-PRES.

THE CONTRACTED PARTY is an individual with broad experience and qualification in DOOR-TO-DOOR SALE of drinking water and sanitation household connections and other inherent to the provision of sanitary services.

#### SECOND CLAUSE: CONTRACT OBJECTIVE

This contract aims at getting THE CONTRACTED PARTY specialized technical services so he/she supplies DOOR-TO-DOOR SERVICES THAT WILL PERMIT THE COMPANY TO REGULARIZE CURRENTLY CLANDESTINE CONNECTIONS. This contract is subscribed following Human Resource Deputy Management report N° .....

#### THIRD CLAUSE: SERVICE SCOPE

THE CONTRACTED PARTY will have to supply the service hired herein according to the technical specifications which to that effect will be provided to him/her by the Commercial Manager, a service to be performed personally, but which can be supplied through assistants or substitutes under his/her management responsibility. The latter will not have any work or contractual relationship with THE COMPANY. It is hereby certified that the CONTRACTED PARTY is not subordinated to THE COMPANY.

## 1. OPERATIONAL WORK DETAIL

1. THE CONTRACTED PARTY will receive from THE COMPANY the updated and classified client portfolio with the exact address of the domiciles to visit.
2. THE CONTRACTED PARTY will verify if the number of the property to be visited corresponds to the received portfolio.
3. THE CONTRACTED PARTY will include complementary information required by THE COMPANY obtained while working, same which will make part of the submitted report.
4. THE CONTRACTED PARTY will regularly submit the files of contacted clients with an information sheet including the following data:

- Regularized client's name
- Exact address
- Status of the documentation provided to the Sales Supervisor
- Cadastre Code
- User's service type
- Household connection status
- Complementary information as considered convenient
- Visit date
- Service regularization agent's name

5. The Sales Supervisor will proceed to verify work done through the Service Sales Progress Report and the Documentation Status Report, analyzing files as part of the control to determine if the work is well done. If not, it will be returned to the sales personnel so as to be rectified. If the sales personnel does not do so, it will be annulled, which will be considered as a negative point for this particular agent.
6. In case THE CONTRACTED PARTY identifies additional clandestine users to those referred by the EPS, users "contacted outside the list", he/she will report them in a list so the EPS personnel who specialize in cadastre activities can verify their status. The services will be regularized if the EPS confirms the validity of the information.

## 2. REGULARIZATION PROCESS

7. Receiving a work order consisting of an updated and classified file portfolio with the exact address of domiciles to be visited.
8. Having a work file with requirements, forms and brochures.
9. Daily planning client business route to sell the services.
10. Informing clients about visit objectives and handing in the requirements for the procedure to be performed.
11. Identifying the client, place and time where he/she can be located for filling-in and signing this form.
12. In cases when the property owner cannot be located, coordinating this with the interviewed person to gather duly filled-in and signed information.
13. Visiting the clients repeatedly until requirements are completed.
14. Compiling every connection regularization requirement including service application, property purchase contract copy or possession certificate, DNI copy, rent contract if it is a tenant, sworn statement in case of absence of any document, water invoice copy (if such is the case), supply contract, payment in installments agreement if any rights needs to be paid.

15. Reporting supervision on findings or inquiries on unforeseen cases or cases EPS does not know about.
16. Handing in the files with the Sales Report to the Supervisor.
17. Handing in the service invoice liquidation on the 20th of each month to generate fee payment at the end of the month.

#### **CLAUSE FOURTH: SERVICE VALUATION AND PAYMENT**

##### **1. SERVICE CONFORMANCE**

18. Service conformance and efficiency will be granted by the Commercialization Deputy Manager or the Zone Head, who will issue the evaluation report, thus determining the amount to be paid to hired personnel.
19. The following will be taken into account for the evaluation:  
THE COMPANY will monthly pay the hired personnel the unit price agreed for each regularized connection according to the liquidation they submit and the monthly supervision report where quality and timeliness will be evaluated.

##### **2. PAYMENT MODALITY**

20. THE CONTRACTED PARTY will submit his/her valuation on a monthly basis according to the invoiced hired service progression according to law, the Commercialization Deputy Manager or Zonal Head will confirm them and deliver them with the respective report to the Commercial Manager who, in turn, will deliver them to the Administrative Manager for its processing and payment.

##### **3. SERVICE VALUATION**

SERVICE DETAIL	UNIT PRICE (S/.)
Clandestine Connection Regularization	8.00
Provisional Connection Regularization	8.00
Correct identification of unlisted clandestine users	1.00

#### **FIFTH CLAUSE: CONTRACT MODALITY**

21. THE CONTRACTED PARTY who will be assigned the tasks specified in item 1 and/or 2 will be hired under service contract (payment for a fee) and will be ruled by Article 1764 and the following in the Civil Code, and paid from the COMPANY's Operative budget for the year.....

#### **SIXTH CLAUSE: SERVICE DURATION**

22. The contracted service will be from ..... to .....
23. In case the Commercial Manager issued negative reports on the service supplied, the contract will be resolved in full right. Submission of a Notary Letter ONE (01) day in advance suffices.

## **SEVENTH CLAUSE: SERVICE SUPPLY**

24. THE CONTRACTED PARTY will receive the daily workload on a daily basis at the Commercialization Deputy Management Area in ..... after which he/she will leave to perform field work. THE CONTRACTED PARTY will fill in the lists referring to performed work.

## **INFORMATION AND COORDINATION**

25. Information is transferred so that the contracted personnel do their work in an orderly manner and issue work reports on a timely basis including observation, occurrences and findings.

26. Strict and permanent coordination of contracted personnel with the Sales Supervisor and the Commercialization Deputy Manager or Zonal Head.

## **EIGHTH CLAUSE: THE WORK PLACE**

27. THE CONTRACTED PARTY will be assigned to.....

## **NINTH CLAUSE: OBLIGATIONS AND POWERS OF THE PARTIES**

### **COMITMENTS AND OBLIGATIONS**

#### **1. THE COMPANY**

28. Authorize and hand-in a duly classified client portfolio.

29. Supervise contacted clients files.

30. Supervise work done through the commercial manager who will appoint the necessary personnel.

31. Control service sales.

32. Follow-up and evaluate service through efficiency indicators.

33. Reject services which do not comply with Technical Specifications.

34. Request the change of personnel who do not fulfill the company's requirements.

35. Replace such personnel immediately.

36. Pay the amount due for the contracted services on a timely basis.

#### **2, CONTRACTED PARTY**

37. Perform contracted services in a technical and appropriate way according to fixed objectives.

38. Opportunely respond to any question or inquiry the company may formulate concerning the contracted service.

39. Provide the necessary means for the efficient execution of the contracted service.

40. THE CONTRACTED PARTY may not transfer (subcontract) the contracted service either totally or partially, being entirely responsible for its execution and compliance.

41. Respond for the partial, tardy or deficient compliance of information submission, being subjected to payment of damages, which will be calculated by THE COMPANY and deducted from his/her payment on the months following occurrence of these facts.

**TENTH CLAUSE: CONTRACT RESOLUTION CAUSES**

42. THE COMPANY reserves the right to resolve the CONTRACT herein for any of the following causes:

- For non-compliance of any of the contractual stipulations established in the CONTRACT herein.
- For duly proven Act of God or Force Majeure
- For bankruptcy or insolvency
- For agreements between the parties.

**ELEVENTH CLAUSE: FOLLOW-UP, SUPERVISION AND EVALUATION**

43. Direct follow-up and supervision of the work will be done by the Commercialization Deputy Manager.
44. Work evaluation will be done according to programmed target by the Commercialization Deputy Manager.

**TWELFTH CLAUSE: LEGAL PROVISIONS**

45. Any event unforeseen in the CONTRACT herein will be solved by harmonic agreement between the parties and will be the subject matter of an additional document hereto.
46. In case of controversy stemming from the CONTRACT herein, the parties resign the jurisdiction of their domiciles and will expressly be subjected to the jurisdiction and competence of the judges and courtrooms of the Superior Court of the city of .....
47. Once the contracting parties read the document herein and expressed their conformance hereto, they subscribe the agreement herein as witness of its validity and acceptance in the city of ..... on ..... month ..... year .....

THE COMPANY

THE CONTRACTED PARTY

DNI .....

## ANNEX 3: Methodological Script Specimen

TITLE: OFFICE TRAINING TO SERVICE REGULARIZATION AGENTS					
PARTICIPANTS: 5 regularization agents, 3 trainers		PLACE: EPS Commercial Division	DATE: Saturday 05/19/2004		
EXPERIENCE OBJECTIVE: That they feel the need and importance of complying with indications and recommendations,		RATIONAL OBJECTIVE: That the regularization agents be well trained to perform their work.	DECISIONAL OBJECTIVE: That regularization agents endeavor to comply with received recommendations.		
STYLE: Vertical, open with questions, following the script in all of its points.		ENVIRONMENT: All the participants around the table.	NOVELTY: Regularization is a service to the client, not to EPS.		
PROCESS	TOPIC	DEVELOPMENT	MATERIAL	TIME	RESPONSE
I INTRODUCTION	1. Greeting and welcome	Acknowledgement for having attended, very brief information on training objectives	-	3 min.	
	2. Presentation of trainers and regularization agents	Trainer and regularization agent presentation	-	5 min.	
	3. EPS information	Presentation of the EPS and commercial division structures	-	10 min.	
	4. Service Regularization Agent Role	General activity description. Incorporation of clandestine users to EPS billing	-	15 min.	
II KNOWLEDGE OF SERVICES PROVIDED BY THE EPS	1. Services provided by the EPS	Explanation of the supply and solid waste disposal system	Posters, brochures	10 min.	
	2. Water quality and price	Brief explanation of EPS water quality and the cost its treatment implies	Flipcharts	5 min.	
	3. EPS side services	Installation, relocation, expansion, cutoff, suspension and restoring of connections, service feasibility	Flipcharts, photocopies	15 min.	
III CORRECT DOCUMENTATION FILLING	1. EPS requirements	Detailed explanation of the documentation required by EPS to divide a debt in installments	Regularization folder	10 min.	
	2. Regularization folder	Orientation for appropriate filling of regularization file forms	Specimen forms	15 min.	
IV CADASTRE ACTIVITIES	1. Cadastre system	Explanation on EPS cadastre information system and EPS division in sectors	Billing sector maps	10 min.	
	2. Cadastre map reading	Explanation of nomenclatures and segmentation used in the maps to facilitate cadastre work	Town cadastre map	10 min.	
	3. Property location	Criteria for locating properties by means of the cadastre code property	Guided practice on the coded lot map	10 min.	
V EPS INTERNAL OPERATION ACTIVITIES	1. Internal procedures at the EPS to resolve control	Explanation on how files are entered in the EPS, cadastre code assignment, file submission, revision, error correction	Flipcharts	10 min.	
	2. Result control	Weekly reports to Supervision for progress control. Regularization agent control and yields evaluation		8 min.	
	3. Regularization agent remuneration	Liquidation modality, according to EPS-approved files.		6 min.	
VI COMPLETION	1. Feedback	Regularization agent final questions	Participant list with personal data		
	2. Acknowledgements	Registration and participant list		20 min.	



## ANNEX 4: SEDAPAL Technical Specifications on Drinking Water and Sanitation Connections

General Manager Resolution N° 252-99-GG - Lima, October 13th, 1999  
Edition and Editorial Production by SEDAPAL Public Relations Office – July 2000

### INSTALLATION OF DRINKING WATER AND SANITATION LINES

Every drinking water and /or sanitation household connection implies external works down to the water meter or even sanitation inspection box. Its installation will be done perpendicularly to the water matrix or sanitation collector with an aligned stroke.

### INSTALLATION OF DRINKING WATER AND SANITATION HOUSEHOLD CONNECTIONS

Every drinking water and/or sanitation household connection has external works to the water meter or even the sanitation inspection box. Its installation will be done perpendicularly to the water matrix or sanitation collector with an aligned stroke.

Only household connections of the following diameters will be installed in networks:

Drinking Water	= 250 mm (10")
Sanitation	= 300 mm (12")

It is not permitted to install household connections in impulsion or driving lines, primary collectors, or emitters, except in exceptional cases following Company approval.

#### 1. DRINKING WATER HOUSEHOLD CONNECTIONS

Drinking water household connections will be simple and will be made up by:

##### a. Intake Elements

- 1 Diversion clamp with its gasket.
- 1 Intake valve (corporation)
- 1 Transition from intake valve to driving piping

Matrix perforation of piping in active service will be done by means of a Muller-type drill or similar and for newly installed pipes with any conventional type. In no case will they be perforated with percussion tools.

If metal clamps are used, they will necessarily be protected against corrosion through the use anti-corrosive paint coating (2 layers) or through a plasticized cover. At the end of their installation, both its bolt and nut will be covered by tar or any other asphalt emulsion.

The intake valve (Corporation) must be totally threaded to the clamp assembly.

#### b. Driving Piping

The driving piping that connects from the intake transition element to the meter box, will enter the latter with a 45° slope.

#### c. Protection Lining Piping

The lining will be at least 75 mm (3") of diameter piping. It will be placed at the crossing of pavements to allow extracting and repairing the driving piping.

#### d. Control Elements

- 2 multiple use passage valves: one with telescoping nipple and the other with discharge point
- 2 standard nipples
- 1 meter or replaced nipple
- 2 threaded pressure unions

The meter will be provided and/or installed by the Company. In case it cannot be opportunely installed, the constructor will provisionally replace it with a nipple. The meter shall be aligned and horizontally leveled together with the other control elements and its base will have a 0.05 separation from the floor.

#### e. Meter Box

It is a pre-manufactured box of at least 0.50 x 0.30 x 0.25 m in the inside for 13 mm (1/2") and 19 mm (3/4") connections and of 0.60 x 0.30 x 0.30 m for 25 mm (1") connections. It lies on the bottom floor, is made of  $f'c = 140 \text{ Kg/cm}^2$  and has a 0.05 m thickness. If the box were made of concrete it would be  $f'c = 175 \text{ Kg/cm}^2$ .

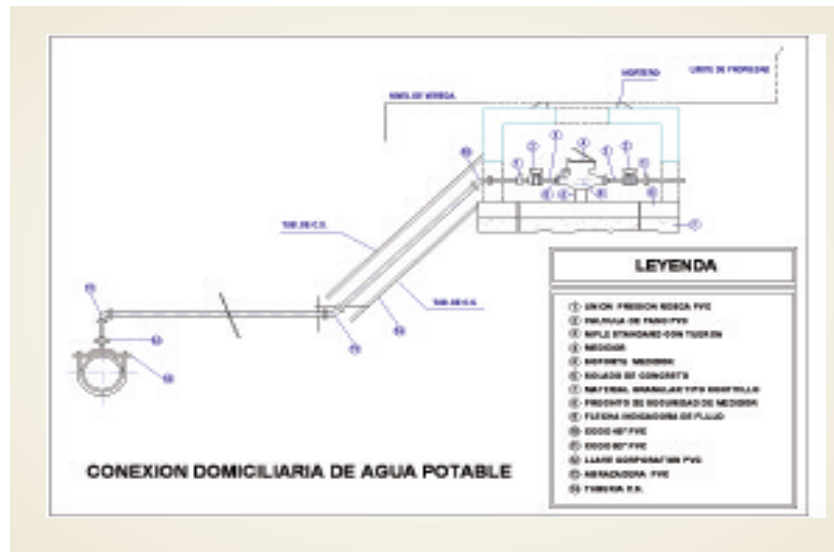
The box will be located on the sidewalk, so it should cover only one of its sections. The sidewalk will be re-built from 1 groove to the other. In case there is no sidewalk, the box will be placed with a concrete slab of  $f'c = 175 \text{ Kg/cm}^2$  of 0.80 x 0.60 x 0.10 m.

The outside size of the box lid is 0.460 x 0.225 m. It will be placed at sidewalk sub-grade level. Besides being standardized, it should also comply with stipulations of section (3).

#### f. Union Element with Interior Installation

To facilitate the union with the property's internal installation, a 0.30 m nipple will be placed from the outer face of the box.

To perform the union, owners will be obliged to install a control valve inside their the entrance property.



## 2. SANITATION HOUSEHOLD CONNECTIONS

Sanitation household connections will have a minimum uniform slope between inspection box and connection to the service collector of 15 ‰ (per thousand).

When the collector is at a depth of more than 2 m, shims of up to 0.80m can be placed in the household connection, reinforced with a support bed and anchorage.

Sewerage household connection components are:

### a. Inspection Box

The inspection box can be made up by pre-manufactured modules of 0.60 x 0.30 m. outside size. If the box were made of concrete, it would be  $f'c = 175 \text{ Kg/cm}^2$  and the internal finishing would be smooth surface or rendered with 1:3 mortar. The base module will have a half-cane shaped bottom.

Besides being standardized, the inspection box lid will also need to comply with every condition required in section (3). The inspection box must be installed within the property retreat area and if it has none in a circulation yard or hall.

In case the box cannot be installed in a place of the property that has a free area, it will be installed in the sidewalk at (0.05 m) deep with its location groove.

### b. Discharge Piping

Discharge piping goes from the inspection box to the service collector connection. The union coupling between the piping and the box will be done with the element discharge piping that manufacturers recommend and the company authorizes.

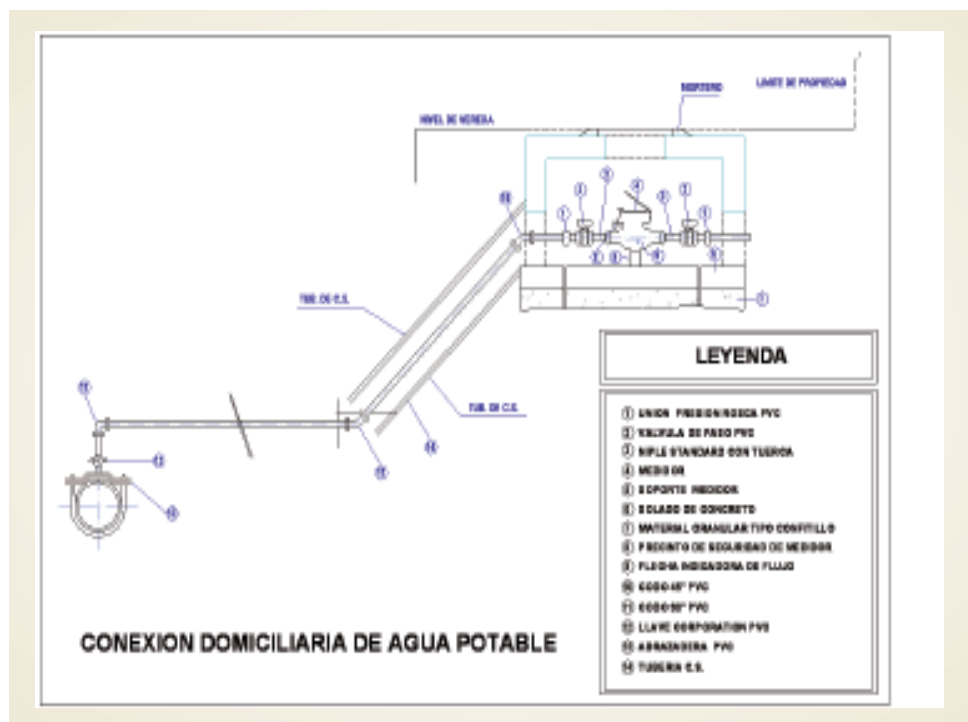
### c. Built-in Elements

The connection junction with a service collector will be done at the collector pipe clef, thus free fall discharge on the collector is obtained. To do so, the collector pipe will be previously perforated through the use of templates so that the element to be connected remains totally supported on the collector without leaving any space which could later imply risk for the water seal.

The union coupling between discharge piping and collector is ensured with the element recommended by discharge piping manufacturers and authorized by the Company.

### 3. CONDITIONS THE WATER METER BOXES AND THE SANITATION INSPECTION BOXES MUST FULFILL

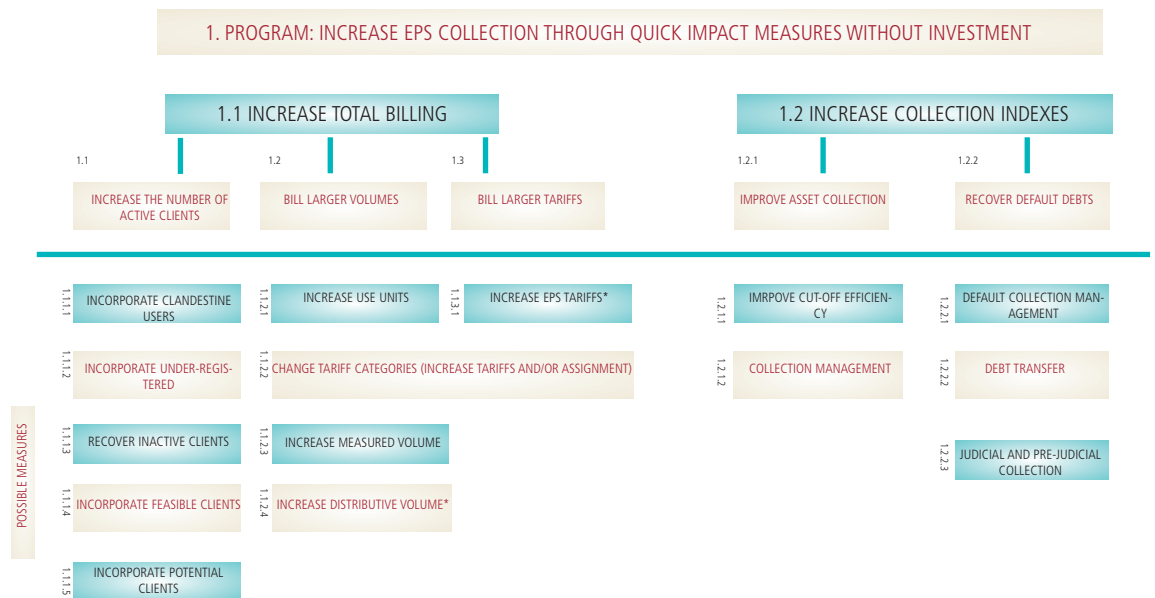
- Resistance to abrasion (wearing by friction)
- Operation facility
- Not easy to steal.



## ANNEX 5: MODULE PLANNING FORMAT (FPM, IN SPANISH)

### MODULE: MASSIVE CLANDESTINE USER INCORPORATION

#### Location of the Module in the Program: Tree of Measures



\* Do not correspond to the commercial area

TARGET GROUP DEFINITION

MAIN TARGET GROUP

COLLATERAL TARGET GROUP

OBJECTIVE DEFINITION AND DOCUMENT GENERAL STRUCTURE:

MODULE TERMINAL OBJECTIVE

■ COMMERCIAL MANAGEMENT

■ CLIENT CADASTRE

■ CLIENT SERVICE

■ COMMERCIAL PLANNING

■ CUT OFF AND RESTORATION

Once trained and/or advised, the EPS implements a cadastre dynamic updating program.

## PARTIAL OBJECTIVES

- A)** Clandestine connections have been framed within the national informality phenomenon.
- B)** The target group knows how to distinguish between different kinds of clandestine connections.
- C)** The target group understands the origins of clandestine connections and acknowledges at least partial responsibility to the EPS.
- D)** The target group understands the negative effects of clandestine connections on the EPS.
- E)** The target group understands which measures prevent clandestine connections.
- F)** The target group understands it is very useful and feasible to implement a massive clandestine user regularization system.
- G)** The target group knows how to implement a clandestine user incorporation system.
- H)** The target group has the tools to implement clandestine user massive incorporation system.

## DOCUMENT GENERAL STRUCTURE

### 1. INTRODUCTION

- 2.1** Clandestine connection type definition
- 2.2** Clandestine connection effects
- 3.1** Preventive measures
- 3.2** Clandestine user regularization
- 3.3** Provisional connection descriptions
- 3.4** Connection suspension
- 3.5** Results to be obtained
- 3.6** Regularized user collection
- 4.** Implementation of the clandestine user regularization program.

### ANNEXES:

All the necessary documents for implementation.

#### Annex N°01

Regularization Folder

#### Annex N° 02

Regularization Contract Specimen

#### Annex N° 03

Methodological Script Specimen

#### Annex N° 04

Drinking Water and Sanitation Household Connection Technical Specification

# Glossary

DRINKING WATER

Water with physical, chemical and bacteriological characteristics. Ready for human consumption, coming from surface or underground sources.

IT APPLICATION

Small software prepared for specific use and adapted to common programs.

BY PASS

Fraudulent diversion to prevent the flow of drinking water through the meter.

CLIENT

Individual or corporation that uses drinking water and/or sewerage services.

COVERAGE

$$\frac{\text{Total No conn.} \times \text{Total No of inh. per conn.}}{\text{Total urban population}} \times 100$$

CODE

Alphanumeric acronym to generally identify a domicile connection, including province, district, billing sector, block of houses, lot and sub-lot codes.

SERVICE CONTRACT

Private document entered into on the one hand by the EPS as grantor and on the other hand by the applicant to services provided by the company in which EPS/User rights and obligations are established.

ANTI-TECHNICAL CONNECTION

Water and/or sewerage connection which does not comply with the minimum technical conditions required by the EPS as piping diameter, minimum depths, material employed, accessories and junctions.

DRINKING WATER CONNECTION

It is the set of pipes and accessories aimed at driving water from the distribution network to the household connection.

FEASIBLE CONNECTION

Drinking water and/or sanitary sewerage connection that can be installed and provides the service to a fitted out property because there is a public network that so allows.

PROVISIONAL CONNECTION

■ The water and/or sanitation connection which distribution networks do not comply with the technical conditions established by the EPS, but which operates with a provisional authorization due to Company lack of resources to expand service coverage and to the user needs for basic services.

VISIT CERTIFICATION

■ Document authorizing the official service regularization agent to visit the owner of the property who is a clandestine user.

AGREEMENT FOR PAYING IN  
INSTALLMENTS

■ Commitment between the EPS and the user on credit to pay amounts claimed by the EPS. It generally consists in dividing payment in installments which are charged in the monthly water and/or sanitation invoice.

ACCESS DIAGRAM

■ A scheme showing the exact location of the property, including referential elements such as the distance from the closest corner, street names, neighboring lots with their respective denomination or cadastre code, or others.

SWORN STATEMENT

■ A document by which the user swears to comply with a commitment in a certain period. Based upon Law N° 25035 (Art. 8) on Administrative Simplification.

REGULARIZATION FOLDER

■ This is the set of documents which are necessary to regularize the drinking water and/or sewerage connection.

FILE DIVISION CARD

■ This is the card filled-in by the regularization supervisor which shows conformance with all the documents that make up the regularization folder.

COLLECTION INDEX

■ 
$$\frac{\text{Monthly collected amount}}{\text{Monthly billed amount}} \times 100$$

ACID COLLECTION INDEX

■ 
$$\frac{\text{Collected amount from the former month billing}}{\text{Former month billed amount}} \times 100$$



UNACCOUNTED-FOR- WATER  
INDEX (ANC, IN SPANISH)

CONNECTION SUSPENSION

PUBLIC FOUNTAIN

RECOVERY

INTRA-DOMICILE INSTALLA-  
TION

PUBLIC NETWORKS

SERVICE REGULARIZATION  
AGENT

ARBITRARY REHABILITATION

$$\frac{\text{PW produced volume} - \text{PW billed volume}}{\text{drinking water billed volume}} \times 100$$

Physical suppression of the household piping branch. In case it is suspended due to debt, the whole connection is removed except for the clamp, which is also removed if the suspension is due to clandestine connection.

Installation of drinking water temporary services in public use area.

It is the volume consumed by a clandestine user before having regularized his/her connection, which is estimated and billed.

Water hardware that drives drinking water from the property outside wall, that is, the border between the public space and the private space, to the water points and appliances inside the property.

Installed piping systems and complementary elements aimed at supplying drinking water or evacuation of waste water. Matrix, trunk and filling pipes make part of such network and connections are derived from them.

Person trained in door-to-door sales whose function is to visit and formalize users who have a clandestine connection, facilitating them the procedures and telling them about the advantages offered by the EPS.

Undue repossession of the drinking water and/or sanitary sewerage service as a reaction of the user to a service cut off or suspension action by the EPS.

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# Acronyms and Initials

"

Inches

A

Water Service

ANC

Unaccounted-for-Water

Art.

Article (in a legal regulation)

Av.

Avenue

C

Street

Cáp.

Chapter

COFOPRI

Informal Property Regularization Commission

COTEC

Brüning Technical, Cultural and Environmental Cooperation

Conex.

Connections (water or sanitation)

D

Sewerage Service (Sanitation)

DNI

National Identity Document

EPS

Sanitation Provider Enterprises

EPSEL

Lambayeque Sanitation Provider Enterprise

Etc.

Etcetera

EEUU

United States

Fig.

Figure

GTZ

German Technical Cooperation

GmbH

German Technical Cooperation

IGV

General Sales Tax

Jr.

Street

LE

Voter Card

Lt.

Lot (House)

M

Meter(s)

M3

Cubic Meter(s)

<u>Min.</u>	Minutes
<u>Mz.</u>	Block of houses
<u>No</u>	Number
<u>NTP</u>	Peruvian Technical Standard
<u>ONGD</u>	Non Governmental Development Organization
<u>NGDO</u>	
<u>Pág.</u>	Page
<u>Párr.</u>	Paragraph
<u>PROAGUA</u>	Drinking Water and Sanitation Program
<u>RUC</u>	Single Taxpayer number
<u>S/.</u>	Nuevos Soles (Peruvian Currency)
<u>S.A.</u>	Public Corporation
<u>SEDAPAL</u>	Lima Drinking Water and Sanitation Service
<u>SICI</u>	Integrated Commercial Information System
<u>SUNASS</u>	National Sanitation Service Superintendence
<u>UPIS</u>	Social Popula Urban Development
<u>Urb</u>	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.

VMCS 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.

### 3. 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



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