Solid Waste Service Provider Entity (EPS-RS, by its initials in Spanish)
It is any natural person or legal entity in charge of providing services of solid waste, which shall be duly registered with the Ministry of Health and get the corresponding municipal licenses.

Environmental Enforcement Entity (EFA, by its initials in Spanish):
It is any public entity at national, regional or local level which has been conferred some or all of the environmental enforcement actions in a broad sense. Exceptionally, and pursuant to the legal provision, any agency pertaining to an entity that is empowered to perform the functions of environmental enforcement may be considered as EFA.

Environmental Enforcement
It is the control action performed by a public entity in order to verify the compliance with the environmental obligations to be controlled in charge of a company, either natural person or legal entity under public or private law. It also covers the environmental enforcement actions that are exercised by the OEFA and the EFA according to their jurisdiction, and may be understood in a broad and strict sense.

(i) Environmental enforcement in a broad sense: It covers the actions of surveillance, control, monitoring, follow-up, verification and other such actions that are set within the functions of assessment, supervision, enforcement and imposition of penalties in order to ensure the compliance with the environmental obligations to be controlled.

(ii) Environmental enforcement in a strict sense: It covers the power for investigating the commission of potential administrative offenses as well as imposing penalties and corrective measures.

Secure landfills
It is any security infrastructure and/or facility designed to contain potentially hazardous waste for the human health and environment. Furthermore, these are established on the surface or underground.

Sanitary landfills
It is any infrastructure and/or facility designed for the sanitary and environmentally safe disposal of solid waste. These are established on the surface or underground and are based on the
principles and methods of sanitary and environmental engineer.

**Electrical and Electronic Equipment Waste (RAEE, by its initials in Spanish)**
It is any electrical and electronic equipment that has reached its end-of-life due to the use or obsolescence and, therefore, become into waste.

**National Environmental Assessment and Enforcement System (SINEFA, by its initials in Spanish):**
By virtue of the Law No. 29325, amended by the Law No. 30011, the SINEFA was created to specify the functions of the environmental enforcement at national, regional or local level.

**Agency for Environmental Assessment and Enforcement (OEFA, by its initials in Spanish):**
It is a public specialized technical agency, attached to the Ministry of Environment and responsible for the environmental enforcement. Furthermore, the OEFA is the governing body of the SINEFA.

This publication is printed at Cyclus Print Matt, on a paper fully made of recycled fibers, free of chlorine and optical brighteners, certified by NAPM (National Association of Paper Merchants). Furthermore, it has been made with Bio Energy (a non-polluting energy) and is certified by Ecoclean and Blue Engel who supervise the products are made under appropriate environmental conditions, in a socially responsible manner and with economically viable resources. The benefits in using a paper fully made of recycled fibers have a lower impact on the ecosystem, equivalent to:

- 431 kg. of tree fiber not consumed
- 7 347 lt. saved of water
- 265 kg. of solid waste not generated
- 52 kg. of greenhouse gases avoided
- 677 KWH of energy not consumed
- 522 km covered in a standard car

**ADDITIONAL CERTIFICATIONS:**
- Licence S44.021 
  Nordic Swan
- ISO9001 
  Quality management
- EMAS, ISO14001 
  EU environmental management/certification scheme
- DIN6738 
  Archive properties, LDK class 24-85 (> 200/g/year)
- EN71-3 
  Safety of toys, migration of certain elements
This document was prepared to explain the basic concepts on solid waste management; cover briefly the various classifications and mention the public entities responsible for the proper environmental enforcement and management.

In its content are included important figures on the generation and management of waste in the city of Lima. Likewise, the main problems related to the solid waste of municipal management in the country are addressed.

It is also important to mention that, in the year 2014, the OEFA will prioritize the supervision of the entities responsible for the environmental enforcement to ensure the proper management of the solid waste in Peru.
These are materials rejected that, generally, have no economic value for the majority of people and are colloquially known as “garbage”. Furthermore, inside of this category, it is found the semisolid materials (such as the sludge, mud, sanguaza (liquid derived from rotten garbage), among others) and the ones generated by natural events. It is also important to mention that the wastewater (water polluted with feces and urine) are not solid waste.
¿How is classified?

Solid Waste
According to its use and management

Municipal Management
(Non-hazardous)

Non-Municipal Management

Hazardous
- Industrial waste
- Hospital waste
- Construction and demolition waste
- Radioactive
- Others

Not Hazardous
- Industrial waste
- Electrical equipment waste - RAEE
- Construction and demolition waste

This categorization allows determining how the solid waste shall be managed. Furthermore, it allows identifying the person responsible of its handling, as well as the authority in charge of the environmental enforcement.

The General Law on Solid Waste is not applicable to the radioactive waste since they are governed by their own regulation.
These are classified according to its origin in: **domestic** (leftovers, paper, bottles, cans, disposable diapers, among others); **commercial** (paper, packaging, personal hygiene debris, among others); street cleaning (road and street sweeping, weed, among others); and products from activities generating similar waste to these, which shall be placed in sanitary landfills.

These are the ones that, due to its characteristics or to the handling which must be submitted, constitute a significant risk for the health or the environment for having, at least, one of the following characteristics: auto-combustibility, explosiveness, corrosiveness, reactivity, toxicity, radioactivity or pathogenicity. For example, the metallic waste containing lead or mercury, the human waste coming from health establishments, the pesticide residue, the herbicides, the waste from the manufacturing of chemical products, the waste with cyanide, among others contained in the Annex 4 of the Regulation for General Law on Solid Waste. Each one of them has to be placed in the secure landfills.
These are not able to be classified in neither of the two types of waste previously mentioned and that, generally, have their own regulation such as the waste of the construction and demolition activities, the Electrical and Electronic Equipment Waste (RAEE) and the industrial waste. Likewise, its enforcement will depend on the industrial sector generating said waste.

**NON-municipal and NON-hazardous waste management**

**ELECTRICAL AND ELECTRONIC EQUIPMENT WASTE - RAEE**

It is governed by the provisions set forth by the National Regulation for electrical and electronic equipment waste, approved by Supreme Decree No. 001-2012-MINAM. It can contain - or not - hazardous components and will depend on the proper handling it receives for its proper recycling or final disposal.

**CONSTRUCTION WASTE**

It is governed by the provisions set forth by the Regulation for the handle and management of the waste resulting from the construction and demolition activities, approved by the Supreme Decree No. 003-2013-VIVIENDA.
Metropolitan Lima on figures*

**LIMA NORTE**
Comas
Independencia
Santa Rosa
Carabayllo
Los Olivos
San Martín de Porres
Puente Piedra
Ancón

**LIMA ESTE**
Ate Vitarte
Chaclacayo
Cieneguilla
El Agustino
La Molina
Lurigancho
San Juan de Lurigancho
San Luis
Santa Anita

**LIMA CENTRO**
Barranco
Breña
Cercado de Lima
Jesús María
La Victoria
Lince
Magdalena del Mar
Miraflores
Pueblo Libre
Rímac
San Borja
San Isidro
San Miguel
Santiago de Surco
Surquillo

**LIMA SUR**
Villa El Salvador
Villa María del Triunfo
Lurín
San Bartolo
Pucusana
Punta Negra
Chorrillos
San Juan de Miraflores
Santa María del Mar
Pachacámac
Punta Hermosa

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Lima produces **7,400** tons of garbage per day

Lima produces **0.65 kg** of garbage per habitant

**88%** of the garbage is collected
How much garbage does a person in Lima produce?

- LIMA NORTE: 0.65 kg
- LIMA CENTRO: 0.71 kg
- LIMA ESTE: 0.63 kg
- LIMA SUR: 0.59 kg

Evolution of the production of solid waste in Lima:

In 20 years, Lima will produce THE DOUBLE OF GARBAGE produce now.

<table>
<thead>
<tr>
<th>Year</th>
<th>T/day</th>
<th>2001</th>
<th>2014</th>
<th>2034</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4,097,32</td>
<td>8,202,09</td>
<td>16,053,80</td>
<td></td>
</tr>
</tbody>
</table>

What kind of garbage is produced in Metropolitan Lima?

---

Province of Lima

<table>
<thead>
<tr>
<th>Material</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scrap</td>
<td>1.3%</td>
</tr>
<tr>
<td>Cans</td>
<td>1.4%</td>
</tr>
<tr>
<td>Glass</td>
<td>3.8%</td>
</tr>
<tr>
<td>Paper</td>
<td>0.67%</td>
</tr>
<tr>
<td>Carton</td>
<td>0.1%</td>
</tr>
<tr>
<td>Plastic</td>
<td>9.1%</td>
</tr>
<tr>
<td>Organic</td>
<td>51.6%</td>
</tr>
</tbody>
</table>

---

Bar chart showing the proportion of different types of garbage in Organic, Plastic, Carton, Paper, Glass, Cans, and Scrap.
Which sanitary landfills is the garbage of Lima sent to?

Lima NORTE
- 62.5%
- 37.5%

Lima CENTRO
- 40%
- 26.67%
- 6.67%

Lima ESTE
- 100%

Lima SUR
- 90.91%
- 9.09%

SANITARY LANDFILLS OF LIMA
To take into account...

The 98% of the municipalities in Metropolitan Lima and Callao have a segregation program in the source of inorganic waste.

The District Municipality of Surco is the only entity that has a pilot plant of segregation of inorganic waste.

Source: Systematization of Supervision Reports of Environmental Enforcement Entities of Metropolitan Lima and Callao (2013). Supervision Bureau of the OEFA.
What entities are in charge of environmental management and enforcement of solid waste?

**Municipal solid waste management**

The solid waste management is responsibility of its producer when it is under its possession. Once the waste is delivered to the corresponding municipality or to the authorized Solid Waste Service Provider (EPS-RS), the latter has the responsibility of its proper management. The final destination of the waste is the sanitary landfills.

**Who is in charge of controlling the municipal solid waste management?**

When the solid waste is under the possession of its producer, the district municipalities (and the province municipalities of the corresponding district) shall control its management. Once the producer deliver the solid waste to the district municipality (who could have hired or not an authorized EPS-RS), the control is in charge of the province municipalities.

**What is the role of the OEFA?**

The Agency for Environmental Assessment and Enforcement (OEFA) is the authority in charge of supervising that the municipalities comply with the control of waste management of the producer.
Non-Municipal Waste Management

The producer is responsible for the waste management until its final disposal, which can be done by his own or by hiring the services of an EPS-RS. Once the waste is delivered to these companies, they are responsible for the management. However, the producer is likely to share responsibility only if he carries out an improper management, for example, (i) if he acts with negligence, frauds, omits or hides information about the management, origin, quantity and hazardous characteristics of the waste; (ii) if he does not verify the validity and scope of the authorization granted to the hired company; or (iii) if he does not verify that the final disposition or treatment facilities of the company have the legal authorizations.

Who are in charge of enforcing the non-municipal solid waste management?

When this waste is under the possession of its producer, the environmental enforcement of waste management is in charge of the sectorial authorities under their scope of jurisdiction. Said enforcement includes the waste, the treatment infrastructures as well as the final disposal that are located inside the operations center of the producer.

What is the duty of the OEFA?

The Agency for Environmental Assessment and Enforcement (OEFA) is the authority in charge of supervising that the sectorial authorities effectively comply with their environmental enforcement duties.
COMPREHENSIVE MANAGEMENT

1. PRODUCTION
2. STORAGE
3. SWEEP AND CLEANING
4. RECOLLECTION AND TRANSPORTATION
5. TREATMENT AND RECYCLING

FINAL DISPOSAL
TRANSFERENCE
The lack of sanitary and secure landfills in Peru

As a direct consequence of the lack of sanitary and secure landfills, the waste is put in inappropriate places normally named as garbage dumps. There only exist nine (9) sanitary landfills and two (2) secure landfills in Peru which are not enough for the garbage volume that is produced in the country.
SANITARY LANDFILLS in Peru

9 Sanitary landfills

Sanitary landfills
Infrastructure and/or facility intended for the healthy and environmentally friendly disposal of solid waste.

2 Secure landfills

Secure landfills
Secure infrastructure and/or facility designed for containing potentially hazardous waste for the human health and environment.
Lack of dumps for final disposal of waste in construction and demolition activities

The dumps are facilities that contain waste product resulting from construction and demolition activities. Even though currently exists a lot of buildings in Peru, there are no dumps. The lacks of them cause that the construction waste are thrown into the sea and riverbanks without any previous treatment. The process for their implementation requires of a proper zoning among other requirements.

Garbage dumps

The garbage dumps are illegal waste disposal places that negatively impact and create infectious focuses at a great scale for people’s health and the environment. These garbage dumps have municipal waste management as well as non-municipal waste management. Regardless of the kind of waste they may contain, the province municipalities have the duty of shut them down according to the Article No. 18 of the Regulation for General Law on Solid Waste.

Lack of segregation and minimization of solid waste

The segregation is the process of separating the waste in order to reduce, reuse and recycle the materials. It is important to mention the importance of this process, from the source up to the final disposal, because it may be able to reduce the quantity of waste found in a sanitary landfill and, therefore, its end-of-life may be extended. This treatment has to be carried out by natural persons or legal entities, that is to say, from homes, offices, industries, businesses, among others.
SUPERVISION of the EFA by the Agency for Environmental Assessment and Enforcement - OEFA

The OEFA, in its capacity of governing body of the National Environmental Assessment and Enforcement System (SINEFA), has to supervise and verify that the EFA comply with its enforcement functions at national, regional and local level, as the case may be. The directives, procedures or guidelines that OEFA establishes for the EFA have to be met on a mandatory basis.

Regarding the supervision of local governments (province and district municipalities), the OEFA monitors the compliance with their environmental enforcement functions. Regarding the environmental enforcement of solid waste, the supervisory function of the EFA consists in verifying that the province municipalities supervise the district municipalities.

If the OEFA discovers that EFA do not comply with its environmental enforcement functions, said situation shall be reported to the Office of the Auditor General.

EFA: Environmental Enforcement Entity

SINADA

The National Environmental Complaints Information Service (SINADA, by its initials in Spanish) is at the citizenship service for the presentation and follow-up of environmental complaints.

Please get in touch with us at:

711-0078 / 711-0079

denuncias@oefa.gob.pe
Law No. 27314 - General Law on Solid Waste, amended by Legislative Decree No. 1065

“Article No. 10 - Duty of Municipalities.-

The Province Municipalities are responsible for the management of the solid waste which has domestic and commercial origin as well as of those waste similar to these ones that were produced as a result of any other activity, within the scope of their jurisdiction, making the coordination with the corresponding regional government in order to promote the execution, revaluation or adaptation of infrastructure for the handling of the solid waste, as well as for the eradication of garbage dumps that put in risk people’s health and the environment. Such municipalities shall:

1. Plan the comprehensive management of solid waste within the scope of their jurisdiction, harmonizing the plans for handling the solid waste of their districts and small villages with the local and regional development policies and with their pertinent Plans of Regional Improvements and Urban Developmen.

2. Regulate and control the handling and the provision of solid waste services within their jurisdiction.

11. Authorize and control the transport of hazardous waste within their jurisdiction, in compliance with the Law No. 28256, Law that regulates the Land Transport of Hazardous Waste and Materials, with the exception of the one performed in the national and regional roads.

The municipalities shall execute programs for the progressive formalization of people, operators and other entities taking part in the handling of solid waste without the corresponding authorizations."

“Article No. 35 - Report of the authorities.-

The sectoral and municipal authorities must systematize and make available to the public the information obtained in the exercise of their functions related to the solid waste management, without breaching the confidentiality of such information, which is protected by special laws.

Likewise, such authorities shall send periodically to the Ministry of Environment a report on the handling of the solid waste produced due to the activities that are within the scope of their jurisdiction in order to comply with the objectives of the National Environmental Management System, taking into account for this purpose, all the operations or processes adopted in accordance with the Article 14 of said Law.”

Regulation for Law No. 27314 - General Law on Solid Waste, approved by Supreme Decree No. 057-2004-PCM

“Article No. 8 - Municipal Authorities.-

The province and district municipality are responsible for the management and handling of the waste which has domestic and commercial origin as well as of those waste similar to these ones that were produced as a result of any other activity. The following is responsibility of these Municipalities:

1. Province:
   
   b) Ensure the proper cleaning of roads, streets and public monuments and promote the proper handling of the waste produced in the capital cities until its final disposal;

   i) Ensure the eradication of the places of inappropriate final disposal of solid waste, as well as the recovery of areas degraded due to such cause, under the criteria established by the Health Authority for each case;

   j) Authorize and control the transport routes of hazardous waste under their jurisdiction, in coordination with the special units of the Ministry of Transport and Communications, with the exception of the one performed in the national road network and in the infrastructure of the regional road transport, in which case the authorization shall be
issued by the competent authority. 
(…)
2. District:  
a) Ensure the proper provision of cleaning, collection and transport services of waste under its jurisdiction, guaranteeing the proper final disposal of such waste. Likewise, this municipality shall determine the areas to be used by the infrastructure of solid waste under its jurisdiction, in coordination with the province municipality and in compliance with the Law and the Regulation; 
(…)

“Article No. 16 - Segregation.-  
The waste segregation is only permitted in the generation source or in the treatment facility operated by an EPS-RS or by a municipality, provided that this one is an authorized operation, or by an EC-RS when the basic operation of waste separation, prior to its commercialization, is planned.”

“Article No. 17 - Treatment.-  
Any waste treatment before its final disposal shall be performed through methods or technologies compatible with the environmental quality and health, in accordance with the Regulation and specific rules. Except for the incineration that is performed according to the technical standards for sanitation and Article No. 47, the non-planned or traditional burning of solid waste is prohibited.”

“Article No. 18 - Prohibition for the final disposal in non-authorized places.-  
It is prohibited the abandonment, dumping or disposal of waste in non-authorized places by the competent authority or those established by the law.  
The places of inappropriate final disposal of solid waste, known as garbage dumping, shall be shut down by the Province Municipality in coordination with the Health Authority of the jurisdiction and the corresponding district municipality.  
The Province Municipality will prepare in coordination with the District Municipalities, a Shut Down and Recovery Plan of Garbage Dumping, which shall be approved by such Health Authority. The Province Municipality is responsible for the progressive execution, without prejudice to the responsibility that corresponds to those who used or handled the place of inappropriate disposal of waste.”

“Article No. 23 - Province Plans.-  
The province municipalities elaborate their Comprehensive Environmental Management Plans of Solid Waste (PIGARS, by its initials in Spanish) in which the citizens take part and in coordination with the district municipalities, the Health Authority and the competent authorities in compliance with the Law.  
The purpose of these plans is to establish the conditions for a proper handling of solid waste, ensuring an efficient and effective provision of services and activities of waste within the scope of their jurisdiction from the generation to the final disposal.”

“Article No. 55 - Segregation of waste.-  
The purpose of waste segregation is to facilitate its recycling, treatment or commercialization through the secure and sanitary separation of its component in compliance with Article No. 16 of the Regulation.”

“Article No. 77 - Purpose of the treatment.-  
The waste treatment is focused, as a priority, on recycling the waste and facilitating the final disposal in an efficient, secure and sanitary manner. In case of hazardous waste, the treatment aims to reduce or eliminate the hazardousness characteristics of the waste in order to separate it for a further stage of its handling or for its final disposal.”

“Article No. 82 - Final disposal.-  
The final disposal of waste under the scope of the municipal management is performed through the method of sanitary landfill. The final disposal of waste under the scope of the non-municipal management is performed through the method of secure landfill”.

Law No. 27972 - Organic Law on Municipalities

“Article No. 80 - Sanitation, healthiness and health.-  
The municipalities, with regard to sanitation, healthiness and health matters, exercise the following functions:  
1. Exclusive specific functions of the province municipalities:  
1.1. Regulate and control the process of final disposal of solid, liquid waste and industrial dumping under the province scope.  
(…)
3.3. Exclusive specific functions of the district municipalities:  
3.1. Provide the public cleaning service,
determining the areas in which there is an increased accumulation of waste, sanitary landfills and the industrial use of waste.

(…)

Law No. 29419 - Law that regulates the Activity of Recyclers

“Article No. 5 - Local regulation.-
5.1 The activity of recyclers is governed by local governments acting as governing bodies within the scope of their jurisdiction. The system of local regulation is focused on incorporating the recyclers as part of the local management system of solid waste. The local governments issue rules to promote the activity performed by the recyclers of non-hazardous solid waste in coordination with the associations of recyclers registered with their jurisdiction.

(…)

Regulation for Law No. 29419 - Law that regulates the Activity of Recyclers, approved by Supreme Decree No. 005-2010-MINAM

“Article No. 7 - Local governments.-
Pursuant to Law No. 27972, Organic Law on Municipalities, the District and Province Municipalities, within the scope of their jurisdiction, are responsible for the following:

(…)
7.6 Control the segregation activities and selective collection of solid waste and formalization of recyclers.

(…)

National Regulation for the Management and Handling of Electrical and Electronic Equipment Waste, approved by Supreme Decree N° 001-2012-MINAM

“Article No. 9 - Local Governments.-
The Local Governments have the following functions:
1. Support the implementation of the Handling Plans of the RAEE produced by population under the scope of their municipal jurisdiction.
2. Promote the principles of Extended Producer Responsibility, encouraging and facilitating, under their jurisdiction, the implementation of handling systems of the RAEE, both individual and group.
3. Promote the collection and awareness campaigns of the RAEE in conjunction with the producers, operators of the RAEE, among others.
4. Under the scope of their jurisdiction, with regard to the solid waste management, promote the segregation of the RAEE of solid waste in the generation source for its differentiated handling by operators of the RAEE and others.”

Regulation for the Management and Handling of Waste in Construction and Demolition Activities, approved by Supreme Decree No. 003-2013-VIVIENDA

“Article No. 19 - Prohibition of abandonment of waste in non-authorized places
19.1 It is prohibited the abandonment of waste in public places: beaches, squares, parks, roads, paths, reserved areas, damaged and protected places due to the national defense; archeological areas; protected natural areas and their buffer zones; water bodies, marine and continental, cliffs; as well as in water areas such as stream channels, riverbeds, streambeds of the water bodies, beaches, sandbars, marginal strips, among others referred to in the Law No. 29338, Law on Water Resources, or considered as public place.

Law No. 28256 - Law that regulates Land Transport of Hazardous Waste and Materials

“Article No. 7 - Province Municipalities.-
The Province Municipalities set the alternative routes for the transit of the units that transport hazardous waste and materials, as well as the places these units may park, in coordination with the Regional Environmental Commission (CAR, by its initials in Spanish) and the competent Regional Government Bureau. In case such populations do not have alternative routes, the transit may be performed in the available routes.”

(…)

Law No. 29338, Law on Water Resources, or considered as public place.
19.2 The materials used in infrastructure works such as construction or reconstruction of streets, sidewalks, drinking water and sewerage works and other technical networks will only stay in the public streets during the time its execution process takes, according to the criteria used in the works of civil construction, and duly authorized by the corresponding municipal authority.

19.3 The breach of the provisions contained in this article shall be penalized by the competent municipal authority, without prejudice to the jurisdiction or functions exercised by other institutions.”

(…) 

“Article No. 60 - Control
The waste is controlled by VIVIENDA without prejudice to the jurisdictions conferred to the OEFA, General Bureau of Environmental Health (DIGESA, by its initials in Spanish) and the local governments”.

(…) 

“Article No. 63 - Municipal enforcement
The local governments, within the scope of their jurisdiction, in terms of sanitation, healthiness and health matters, shall perform the control and enforcement, in compliance with this Regulation, concerning the generation, transport and disposal of waste under the scope of their localities.”

(…) 

“Article No. 71 - System of penalties
(…) 
71.2 Within the framework of the functions set forth by Law No. 27972, Organic Law on Municipalities, and this Regulation, the offenses for acts or omissions will give rise to the application of administrative penalties by the competent municipal authority.”

(…)