

G.5 Institutional, Organizational and Financial System

G.5.1 Institutional System of Solid Waste Management¹¹

G.5.1.1 Legislation and Regulation

A legal and regulatory framework controls the environmental management for solid waste in El Salvador, including AMSS, with the following juridical hierarchy:

- The Constitution of the Republic
- Treaties and agreements signed and ratified by El Salvador
- Secondary laws related
- Municipal ordinance.

Since the current study deals only with municipal wastes (domestic, commercial, institutional and street sweeping wastes) and hospital refuse, the following legal and regulatory explanation will only refer to the management of such wastes.

a. The Constitution of the Republic

- Article No. 65 states that health of population is a public asset and the State and people must watch over and preserve it.
- Article 60 states that all public and private educational centers are obligated to teach the preservation of natural resources among other topics. Such provision related to the management of solid wastes is followed in a partial manner only.
- Article 117 declares that society must be concerned on the protection, restoring, development and correct utilization of natural resources.
- Article 246 states that public interest is ranked above private interest.

b. International Treaties and Agreements

Article 144 of the Constitution establishes that international treaties signed and ratified by El Salvador become compulsory laws of the Republic, and their hierarchy is even higher than those secondary laws promulgated by the Legislative Assembly.

b.1 Basel Convention

It was ratified through Decree No. 752 of the Legislative Assembly on July 24th, 1991. Said regulates the trans-boundary movement and disposal of hazardous wastes.

- Annex I of such decree defines the “Waste categories to be controlled”, such as those resulting from health centers activities, from the production and preparation of pharmaceutical products and those drugs and pharmaceuticals already expired.
- Annex II regulates the “Waste categories to be regarded in a special manner”, such as domestic solid waste and those resulting from incineration.

¹¹ Study on the institutional system is based on the information provided by AMSS municipalities in January 2000, on the “Análisis Sectorial de Residuos Sólidos en El Salvador” carried out by PAHO in May 1998 and on other documents of the bibliography.

- Annex III lists the features of medical solid wastes, be it infectious substances with microorganisms or toxins, or waste that generate toxic substances after its disposal, such as leachate.

This agreement is in a beginning stage of enforcement.

c. Secondary Laws Related

c.1 Health Code

This code was created through Legislative Decree No. 955 on May 11th, 1988. The MSPAS is responsible of planning health policies and executing and evaluating those activities related to health.

- Article 56 of the code states that MSPAS will, through national, departmental and local health entities, develop environmental sanitation programs aimed at “eliminating refuse and other wastes” in communities, among others. It is necessary to clarify that on the other hand, since Article 4 No. 19 of the Municipal Code establishes that “municipalities will be in charge of rendering the cleansing service, street sweeping, collection and final disposal of wastes”, municipalities are currently carrying out such activities.
- Article 74 establishes that MSPAS will “authorize the location of public waste disposal sites”. This article is somewhat confusing, since it apparently refers to the location of “containers” instead of final disposal sites.
- Article 77 states that “those establishments that generate wastes should not deliver such waste to the public cleansing service, because their nature or hazardousness calls for a treatment system authorized by MSPAS”. This provision is not actually enforced.
- Article 109 refers to the safe and hygienic working conditions under which workers should perform their job. This is partially fulfilled.
- Title III, “Fines, sanctions, competency and procedures” sets the sanctions by the Health Code, which are partially imposed.

c.2 Municipal Codes

The municipal code was issued by Legislative Decree No. 274 on February 5th, 1986.

- As mentioned before, Title III “Municipal competency”, Single Chapter, Article 4 No. 19 establishes that municipalities will render cleansing services. Their implementation and practical execution are regulated by municipalities –as in some municipalities of AMSS- through Municipal ordinances, as shown in Title II, “General concepts”, Single chapter, Article 3 No. 5.
- Title X “Sanctions, procedures and appeals” in Article 126 states that municipal ordinances can establish sanctions such as imprisonment, fines, seizure and closing. Article 128 sets the maximum amount of fines at 10,000 colones. Fines for infractions begin at 10 colones. Actually, these fines are quite low when adjusted to the current exchange rate and are not enforced.
- Article 130 states that municipal authorities by their own can apply fines after a probation process, which turns it into a practically inapplicable article.

c.3 Environment Law

This law, approved by Decree No. 233 on March 2nd, 1998 is still in its initial stage for enforcement, as its regulations have to be approved.

- Article 6 establishes the creation of the National Environment Arrangement System (SINAMA) that is coordinated by MARN and in which environmental units of the municipalities of AMSS take part, among others. The objective of SINAMA is “to implement, enforce and maintain the principles, norms, programs, management and coordination of the State’s environmental duties with public bodies and institutions”. SINAMA is still under its initial stage.
- Article 52 sets forth that “MARN will promote regulations and programs on reduction at the source, recycling, reuse and adequate final disposal of solid wastes, in cooperation with MSPAS, municipal governments, social organizations and business sectors. To achieve so, a National Program for the Integral Management of Solid Wastes will be formulated and approved, which will include selection criteria for the final disposal site”. No further steps have been achieved yet in this regard.
- The law states that infractions will be put into effect by MARN. Sanction will be imposed by means of fines and it will be based on minimum monthly wages provided by law. “Less severe” infractions will be fined between two and 100 minimum monthly wages, whereas “severe” infractions will range from 101 up to 5,000 minimum wages.

d. Municipal Ordinances

Municipal ordinances prescribed by the Constitution are enforceable within the corresponding municipality on local issues.

d.1 In AMSS, San Salvador’s regulatory ordinance on Cleansing Service issued in May 1989 has nine chapters and states the municipality’s obligation to render the domestic solid waste collection service, street sweeping, cleansing of city center sidewalks, ravines, city roads and final disposal of wastes, as well as cleansing of parks, squares, markets, green areas and municipal promenades. Some important articles are shown next.

- The municipality is endowed to authorize private persons or enterprises to provide such service.
- The municipal council is empowered to grant the collection of non-domestic solid wastes, be it through an agreement, a concession or any other legal means.
- Article 23 determines those wastes that will not be collected by the municipal service. In real practice, this is not carried out, for instance, with pathological refuse.
- The ordinance clearly establishes that the municipality will authorize solid waste final disposal sites in the city of San Salvador.
- The ordinance sets fines for those who infringe the law from 15 up to 1500 colones. Actually, this provision is partially enforced.
- Chapter IX sets forth that the fines collected will go to the municipality’s funds.

d.2 Another instance is the ordinance of the municipality of Apopa, issued in February 1993. Its partial objective is to control the collection of wastes only. Besides, the municipality is held responsible for the collection of solid wastes, leaving no space for private sectors to participate. Likewise, it does not clarify what type of solid wastes will be collected, which means hazardous refuse could be collected as well.

Table G-58 summarizes the juridical framework related to the management of solid wastes.

Table G-58: Juridical Framework related to Solid Waste Management

Juridical instrument	Enforced in	Relation with solid wastes	Body in charge	Sanctions	
				Regime	Enforcement
Constitution of the Republic	Throughout the country	Regular	Executive power	NA	NA
International treaties and agreements (Basel convention)	Throughout the country	Partial	MARN	Yes	None
Health Code	Throughout the country	Partial	MSPAS	Yes	Minimal
Municipal code	Municipality	Partial	Each municipality	Yes	Minimal
Environmental Law	Throughout the country	Partial	MARN	Yes	Minimal
Regulatory Ordinance on Cleansing service	Municipality	Partial	Each municipality	Yes	Minimal

Note: NA: not applicable
Source: Prepared by the Study Team

G.5.1.2 Entities Involved

Figure G-22 shows the institutional framework that encompasses all public, private and social sectors, as well as international bodies, that permanently and occasionally participate in the regulation, operation, inspection, financing and cooperation for the municipal and hospital solid waste management in AMSS.

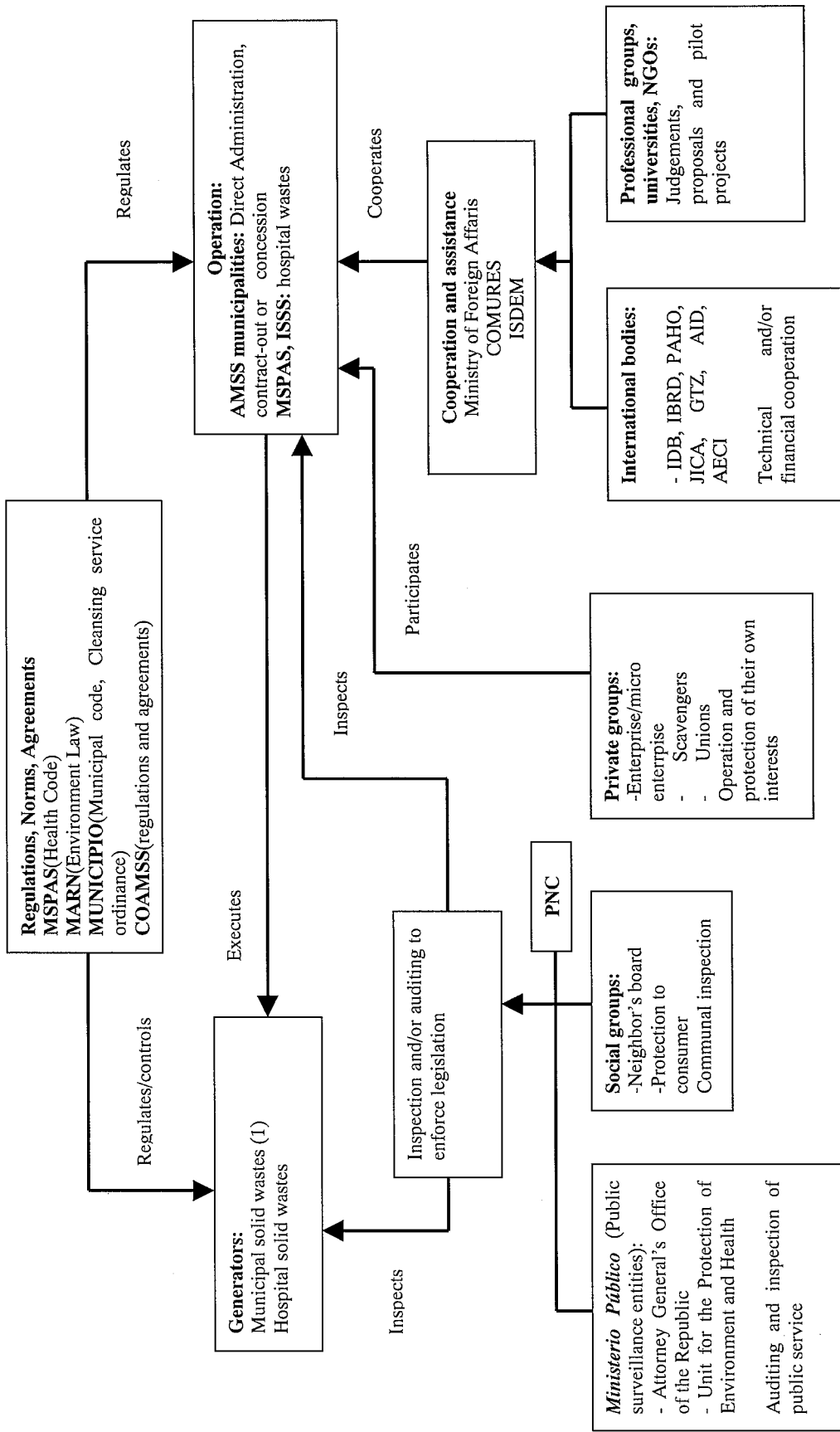
Table G-59: summarizes the functions to be performed by the diverse institutions and bodies in SWM in AMSS.

Taking into consideration that SWM in AMSS is carried out fundamentally by different municipalities of the metropolitan area, participation by entities is summarized as follows. However, it should be noted that institutions are not listed according to a priority arrangement.

a. Ministry of Public Health and Social Assistance (MSPAS)

The Office of Environmental Health, by means of the Department of Environmental Cleansing, carries out the activities linked with the management of solid wastes. This Department is divided into two sections; one is Environmental Quality and the second one is Basic Sanitation, within which the Solid Waste Program is found. In consequence, coordination among institutions with AMSS municipalities is fundamental, especially with regards to the storage, collection, haulage, treatment and final disposal of pathological wastes from hospitals and health centers.

MSPAS' functions for the management of solid wastes in AMSS refer to the partial regulation of municipal wastes, as well as to regulate, inspect, punish and partially operate, manage and finance with respect to hospital wastes.



(1) Municipal solid wastes: domestic, institutional, commercial and street sweeping solid wastes

Figure G-22: Regulatory and Operative Institutional Framework of SWM in AMSS

Table G-59: Functions to be performed by Institutions and Entities of SWM in AMSS (Year 1999)

Bodies	Establishes norms	Plans	Operates	Finances	Commercializes	Manages	Regulates	Inspects/ audits	Punishes	Cooperates/ consults
MSPAS	X	X					X	O	O	O
MARN	X	X					X	X	X	O
Municipalities	X	X	X	X	X	X	X	X	X	
COAMSS	X	X					X		X	O
OPAMSS	X	X					X			X
Solid waste generators		O	X	X		O		O		X
<i>Ministerio Público</i> (Public surveillance entities)								X	X	
Enterprise/ micro-enterprise		X	X	X	O	X				
Scavengers			X		X	X				
Unions			X			X				
Prof./Univ/NGOs		O				O	O	O		X
Communal groups		O	O	X		O		X		X
International bodies				X						X

Note: X: Total function O: Partial function Blank: No action

b. Ministry of Environment and Natural Resources (MARN)

The MARN, which was created in 1998, replaced the "Secretariat of Environment (SEMA)". Its organization chart is still under preparation and it normalizes, regulates, plans, inspects and punishes those activities related to SWM.

c. Municipalities

The municipality of San Salvador and the 13 municipalities of AMSS are in charge of operating cleansing services within this area and maintaining the services sustainable. Some of the actions are as follows:

- To formulate urban cleansing policies, plans and programs within the corresponding municipality.
- To issue the ordinances to regulate and issue norms over SWM.
- To operate cleansing services through direct administration, contract-out or concessions.
- To finance and manage the commercial system of the cleansing service.
- To administer the service.
- To inspect the compliance with regulations and to punish its non-fulfillment.
- To promote community participation.
- To collaborate and participate in hygienic and environmental education programs for the community.

d. COAMSS

The Mayors Council for San Salvador Metropolitan Area has the following functions:

- To plan and control AMSS development, in order to utilize resources in an efficient manner.
- To coordinate public investment and services provided in AMSS.
- To arrange actions among municipal governments so as to achieve their harmonic and sustainable development; for instance, the sanitary final disposal of municipal solid wastes in AMSS.

e. OPAMSS

COAMSS created the Planning Office for San Salvador Metropolitan Area (OPAMSS) on February 3rd, 1990. This body is in charge of investigating and analyzing urban development problems, as well as advising COAMSS on strategic programs and projects. Some of its functions, among others, are the following:

- To elaborate metropolitan development policies.
- To develop sector plans, investment programs and projects.
- To issue norms and regulations.
- To review, evaluate and adjust sector plans.
- To coordinate and supervise implementation by executing units of each municipality in the field of public services, among others.

f. Solid Waste Generators

For the present study, generators are regarded as those people, institutions and establishments that generate municipal solid wastes (domestic, commercial, institutional and street sweeping wastes) and hospital solid wastes.

The actions performed by the municipalities in AMSS (storage, collection, sweeping, haulage, treatment and final disposal) are aimed at the management of such wastes.

Although generators have the right to live in a healthy and clean environment, they are also obliged and responsible for participating in the stages of solid waste management. This participation implies the minimization of wastes generation; supporting of recovery, reuse and recycling of solid wastes; sustainability of the service by paying fees that meet its real costs; and inspecting the fulfillment of regulations, both by those who render the service and the users themselves.

g. Ministerio Público (Public Surveillance Entity)

With respect to the environment in general, this institution cooperates with the judiciary through the corresponding actions, enforcing laws and imposing sanctions. Besides, it works as a reconciling body in conflicts that can be settled by means of an agreement between the parties. The bodies related to solid wastes are the Attorney General's Office of the Republic (Unit for the Protection of Environment and Health) and the Attorney's Office for the Protection of Human Rights (Assistant attorney general for the Protection of Environmental Rights).

This inspection and auditing of solid waste management has by the Attorney General's office has made some warnings so far, yet no sanctions have been imposed.

h. Private Groups

The main private groups that work in the solid waste management and defend their own interests within AMSS are as follows.

h.1 Enterprises

The corporation "Integral Management of Solid Wastes, mixed economy open-ended Company (MIDES)" is currently (February 2000) operating the sanitary landfill located in the municipality of Nejapa under a contract with 10 municipalities. MIDES corporation will be addressed in further detail later.

For the collection of hazardous hospital wastes, the following enterprises are currently operating:

- "Guadalupe" private company, which was hired by the Salvadoran Social Security Institute (ISSS) for the collection of hazardous solid wastes from hospitals.
- "MIDES" entered a contract with MSPAS, ISSS and other bodies for the management of pathological hospital wastes in the autoclave system installed in Nejapa's sanitary landfill.

Besides, industries located in the municipalities of San Salvador, Soyapango and Ilopango contract out the collection of their solid wastes to private haulage companies; such wastes are disposed of at Nejapa landfill, although a portion of them are possibly dumped illegally. The corresponding municipalities duly register and authorize some of these haulage companies.

h.2 Micro-enterprises

Most of the existing micro-enterprises were formed by their own and in response to the lack of cleansing services for the population. Most of these are informal companies, some have been supported by NGOs and very few entered formal contracts with the municipalities of AMSS. Not many micro-enterprises are registered at the municipalities; most of them are in fact concessions that deal directly with the users of their services. Therefore, most of micro-enterprises are non-formalized.

Most of these micro bodies work like cooperatives, are family businesses, micro-enterprises and one-person companies. 11 municipalities have been identified of having micro organizations that work in SWM.

An important portion of the micro-enterprises conducts collection duties, whereas only some are committed to sweeping, haulage, compost processing, recycling and final disposal.

In summary, an important part of the micro-enterprises are barely self-sustainable, and because of their being informal, they cannot have access to loans and thus requiring assistance for their organizational development.

h.3 Scavengers

Also known as “*pepenadores*”, this is a group that weakened when Mariona dumping site (Apopa) was closed and Nejapa sanitary landfill began operations. This group, calculated in around 300 persons –women most of them-, carried out activities related to SWM: informal collection, separation of materials before collection, in recycling tasks and even such works at the disposal in open dumping sites as “La Chuca (Espiga)”, where solid wastes from Cuscatancingo and Antiguo Cuscatlán are disposed of.

The workers of the collection service in all the municipalities of AMSS perhaps form the largest “informal” scavenging group. They retrieve the most valuable materials during the collection and later trade them with the help of municipal vehicles.

h.4 Unions

Half of the municipalities in AMSS have their staff belonging workers that are from five different associations. The Salvadoran legislation does not allow public workers to be registered to a union; that is why they are part of associations. Labor conflicts in 1999 were 3 strikes and two stoppages in 3 municipalities, which represented only 12 days in total (Table G-60).

i. Social Groups

Neighbor boards and other popular organizations, as well as the Direction of Protection to Consumers, have a function of inspecting SWM activities, but in a limited way.

j. International Bodies

International cooperation in actions of technical assistance, financing and even donations encompass the following institutions: IDB, IBRD, PAHO, JICA, AID, GTZ, AECI an the European Community. Such cooperation is channeled through the Ministry of Foreign Affairs, COMURES, ISDEM and others.

Table G-60: Unions and Labor Conflicts - 1999

Municipalities	Unions	Labor conflicts (1999)
San Salvador	ASTRAM, ATRAM, CGTM	1 strike (3 days), 2 stoppages
Mejicanos	Yes	1 strike
Ciudad Delgado	No	-
Cuscatancingo	No	-
Ayutuxtepeque	No	-
San Marcos	ATMES	-
Nueva San Salvador	ATRAM	1 stoppage attempted
Antiguo Cuscatlán	No	-
Soyapango	ATRAM	1 strike (8 days)
Ilopango	ATRAM	-
San Martín	No	-
Apopa	ASTRAM	-
Nejapa	No	-
Tonacatepeque	No	-

Note: ASTRAM: Asociación Salvadoreña de Trabajadores Municipales
 ATRAM: Asociación de Trabajadores Municipales
 CGTM: Confederación General de Trabajadores Municipales
 ATMES: Asociación de Trabajadores Municipales de El Salvador

Source: Prepared by the Japanese Study Team

k. Other Bodies

Other civil society bodies participate in SWM activities of AMSS, such as the following:

- Universities with research works on specific fields and graduation works of students. Examples of these are Universidad de El Salvador, UCA, Universidad Tomás Alva Edison, Universidad Don Bosco, Universidad Luterana Salvadoreña.
- Several NGOs support activities related to SWM; such as the creation of cooperatives of former scavengers, assistance of micro-enterprises and environmental education activities.
- Associations of professionals such as the Salvadoran AIDIS, whose objectives include technical judgements, educational activities and training on SWM topics.
- Corporation of Municipalities of the Republic of El Salvador (COMURES).
- Salvadoran Municipal Development Institute (ISDEM).

Regarding the last two bodies, a sort of competition between them is perceivable, whereas some NGOs have financial difficulties and lack of trained human resources.

G.5.1.3 Institutional Coordination

Table G-61 shows the opinion at the municipalities of AMSS regarding the coordination with entities involved in SWM. The following is perceived:

- Coordination with MSPAS is acceptable.
- Coordination with MARN is virtually non existent.
- Regarding other entities, coordination and support by ISDEM, IDB, GTZ, AID on municipal development duties is remarkable, but not in cleansing services.

It is worth mentioning that MSPAS, MARN and the Attorney General's Office randomly warn some municipalities on the inappropriate management of solid wastes, but not to the extent of imposing sanctions.

Coordination among the 13 municipalities and San Salvador is good, and they frequently support between each other when collection equipment is insufficient or when occasional strikes are present.

G.5.1.4 Information

During the meetings held with the 14 municipalities, it has been perceived that their corresponding cleansing operative service does not have enough information or even no data at all, except one municipality. This situation in turn does not allow a management tool for decision-making that might permit the improvement and better quality of the services and thus reduce costs. This becomes more critical with respect to data on budget and costs, as cleansing teams are completely ignorant of such information. In fact, this might lead to a misinterpretation of priorities, inefficient planning, incorrect extrapolations and wrong decision-making.

Furthermore, insufficient criteria, if any received, applied to obtain information are hardly homologous and it is difficult to compare among AMSS municipalities.

Table G-61: Institutional Coordination

Municipality	MSPAS	MARN	Other entities
San Salvador	A good technical correlation	Incipient	IDB, European Community, GTZ in institutional development areas
Mejicanos	It was warned	None	IDB, ISDEM
Ciudad Delgado	Environmental education	None	They do not know
Cuscatancingo	Occupational health	Good	They do not know
Ayutuxtepeque	Occupational health	None	ISDEM, USAID, GTZ
San Marcos	Scarce collaboration	In minor activities	ISDEM, SACDEL, in institutional development
Nueva San Salvador	Support in occupational health	No communication	ISDEM
Antiguo Cuscatlán	Acceptable	It was warned on open dumping site	ISSS
Soyapango	Good coordination	No communication	NGOs, private consultant companies: good; ISDEM: scarce support
Ilopango	Very good	No communication	ISDEM: SAFINO system
San Martín	Very good	None	They do not know
Apopa	Weak	None	ISDEM, GTZ, AID
Nejapa	None	None	ISDEM, GTZ, support in institutional development
Tonacatepeque	Very good	Scarce	They do not know