Annex V

Promotion of the Citizen Participation

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V Promotion of the Citizen Participation

V.1 Background

The rapid population growth and the economic growth have been increasing the quantity of waste, and the work load of solid waste management (SWM) has exceeded the capacity of the AND. This has resulted in several problems such as waste scattered in the city, financial difficulties in the SWM, etc. One of the most important strategies to overcome these problems is to foment citizen participation in SWM. Therefore the M/P has given great priority to the promotion of citizen participation.

Although the ADN has tried to obtain the participation of the citizens, in practice, citizen participation in SWM is passive due to a lack of information on SWM.

The strengthening of ADN's communicative ability with the residents is perceived as essential to promote citizen participation, which is important for achieving the objectives of the Master Plan. Consequently, the implementation of the Pilot Project of Promotion of the Citizens Participation has been decided.

V.2 Implementation Method

The main purpose of the Pilot Project was to build a model to provide SWM through giving information to the residents, such as information about the waste collection service, discharge methods, etc. and to reinforce the communication of ADN with the residents through this model's construction.

Also, the Pilot Project supported the previously mentioned Collection Improvement Pilot Project. In synthesis, one of the objectives in the development of the new collection service was to clearly transmit the information to the residents, to encourage residents to discharge waste in an appropriate way and on the established days.

The formulated objectives of the Pilot Project to achieve these goals were directed for the residents of sectors 5 and 6 (refer to the Collection Improvement Pilot Project) to have access to and be able to understand the information of SWM as the collection service and discharge ways.

As mentioned, the Pilot Project was carried out in sectors 5 and 6. For descriptive purposes the first project (in Sector 6) was called the Pre- Pilot Project and the second (in Sector 5) was called the Pilot Project. The Pre- Pilot Project (PPP) started on October 30, 2005, and the Pilot Project (PP) began on June 19, 2006.

The implementation methods through the development of PDM (Project Design Matrix) are described next.

a. Project Design Matrix

| Name of the Project: Promotion of Citizen Participation | Period October 2005 – December 2005 May 2006 – July 2006 |
|--|--|
| Target Areas: | Target Group |
| Pre- Pilot Project Areas (Sector 6 and Pilot Project Area (Sector 5) | Personnel of ADN, residents |

| | Г | | l |
|--|---|--|--|
| Summary of the Project | Indicators | Means of Verification | Important Assumptions |
| Overall Goal Formulation of an information transmission model to the citizens in relation to the collection service, discharge ways and aspects related to SWM. | Grade of citizens` understanding of the information. Observation of the discharge method. | Records of patrolling data on collection conditions. Reduction of claims for waste collection problems. | The SWM is considered as a priority by ADN. |
| Project Purpose 1. The residents of sectors 5 and 6 are able to have access to the information of the SW collection service, discharge method and other aspects of SW management, and they are able to understand the information. | Grade of citizens` understanding of the information. Observation of the discharge way | Records of patrolling data on collection conditions. | Revision of the M/P based on the results of the P/P. |
| Outputs 1. Understanding of the situation through communication between ADN and the residents. 2. ADN's capacity as information and service provider to the residents is strengthened. 2- ADN acquires the capacity to inform the residents of the waste collection frequency, schedule and discharge methods. 2-2 The citizens obtain information of the collection days and hours, discharge methods (only in the PPP area) from loudspeaker vehicles. 2-3 The citizens are able to understand the messages of the basic rules of the SWM (PP area) through posters. 2-4 Through the advertising signboards the citizens know the message of "Clean City Project" (PP area). 2-5. Through the Neighbors Committee, the citizens receive the information of the collection days and hours, discharge methods, and they are able to understand the messages of the basic rules of SWM. 2-6 The complaints about the collection service are decreased. | Grade of citizen's understanding of the information (residents, building administrators, neighbors in general). | Interviews carried out by AAA Dominicana (telephone calls) Monitoring recording on site | ADN will assure the continuation of the program. Credibility in the services provided. |
| Activities 1. Survey and analysis of communication between the mass media and the citizens regarding SWM (Neighbors Committee and others). 2. Strengthening of ADN as a provider of information and service to the citizens. 2-1 Preparation and distribution of | Entrance <dominican side=""> • Counterparts (2) <japanese side=""> S/T Member: One proje patrolling the collection codata management. Supporting material</japanese></dominican> | | The C/P commits to carry out the pilot project of promotion of the citizen participation |

| Summary of the Project | Indicators | Means of Verification | Important Assumptions |
|---|--|--|--------------------------|
| flyers. 2-2 Preparation and distribution of posters. 2-3 Preparation and distribution of advertising signboards. 2-4 Organization for information meetings with the Neighbors Committee and similar groups. 2-5 Formulation and design of communication tools for the residents and the person responsible for the collection service. 2-6 Formulation of a reply system to the resident complaints; recording and evaluation of the information of complaints by means of digital mapping. | Flyers, posters, adv Equipments for inf the citizens (set). | ertising signboards. formation meetings with | |

b. Implementation Plan

| Activity | Description | C/P | S/T | Remarks |
|---|--|-----|---------|--|
| 1. Plan | Information Program | | • | |
| 2. Preparation | | • | • | |
| a) Tools for the promotion of citizen participation | Preparation of draft information instruments and complementary materials: flyers, posters, invoices (AAA Dominican), advertising billboards. | • | • | Preparation by the C/P and S/T. Production and supply: |
| b) Coordination with the Neighbors Committee and buildings administrators | Coordination with leaders of community organizations and realization of meetings | • | Support | |
| 3. Plan implementation | Meetings with N/C and buildings administrators. Complementary and support activities (environmental days, cleansing operatives, etc.) | • | Support | Organized by the C/P and the S/T Organized by the C/P |
| Production and printing of the information tools. | Design, production and printing of information materials: flyers, posters, invoices, advertising signboards. | • | • | Production and supply: S/T |
| 5. Monitoring | Visits to the pilot project Monitoring registration (measurement of the grade of the information obtained by the residents) | • | • | |
| 6. Evaluation | Analysis and evaluation of the activities of promoting the citizen participation. | • | | |
| Revision of information materials and mass media (if necessary) | Revision | • | Support | |

c. Organization for the Promotion of the Citizen Participation

The Environmental Management and Urban Cleansing Directorate (EMUCD) is in charge of SWM; however, there are several other departments in ADN that have communication abilities with the residents. Especially, Triple A, which is in charge of billing and collections for the collection service, fulfills an important role regarding this function. The following

figure shows the relationships and functions of the departments that participate in the Pilot Project.

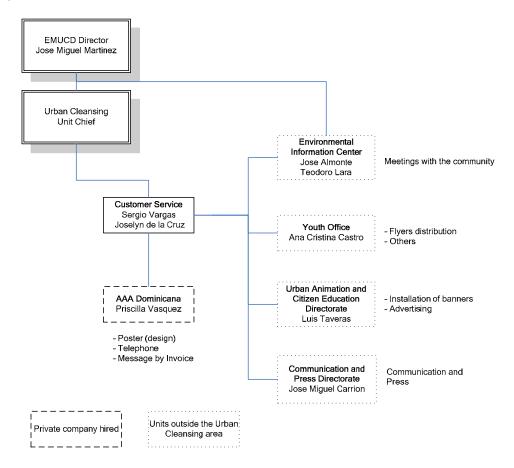


Figure V-1: Organization for the Pilot Project

Table V-1: Distribution of the Activities for the PPP

| JICA Study Team | Technical assistance production and printings | Technical assistance, supervision | Technical assistance | | Technical assistance | Technical assistance |
|--|---|---|--|--|------------------------------------|---------------------------|
| Environmental Information Center | Meetings with the Neighbors Committee | - | Facilities and provisions | - | - | - |
| Urban Animation and Citizen Education Directorate | ı | Assistance and production of the message recorded | - | - | - | ı |
| Youth Office and Secondary Students | Distribution of flyers in all sectors of the PPP Area | 1 | ı | 1 | - | |
| AAA Dominicana | - | - | 1 | Design, production, printing and distribution | Design of the formats, phone calls | Phone calls |
| ADN (C/P) | Design of flyers Coordination Supervision | Design of the draft Coordination Supervision | Organization, explanation to the residents | Supervision | Supervision, coordination | Design and supervision |
| Information Tools | Flyers (20,000 copies) | Message recorded (2) (for loudspeakers) | Flyers, printed materials, slides, power point, etc. | Invoice | Interview format | Format |
| Activity | Inform the citizens of the collection days and hours, and discharge methods | Announcements with loudspeakers (information to the citizens of the collection days and hour) | Meetings with the Neighbors Committee (information to the citizens of the collection days and hour, discharge methods and cleansing regulations) | Information through invoice | Interviews | Monitoring |

Table V-2: Distribution of the Activities for the PPP

| The collection inform the collection inform the collection information of solid information o | Activity | Information Instruments | ADN | AAA Dominicana | Youth Office | Urban Animation and Citizen | Environmental Information | JICA Study Team |
|--|---|----------------------------|---------------------|---------------------------|--------------------------|--------------------------------|---------------------------|-----------------|
| Flyers Design of flyers, (30,000) Coordination, with the payment supervision of the payment sign boaters by the flyers in supervision of the payment sign boaters by the sign of the payment sign boaters by the payment boaters by the payment sign boaters by the payment sign boaters by the payment boaters | | | SERVICE C/P) | | | Education Directorate | Center | |
| (30,000) Coordination, with the payment the flyers in specific areas supervision invoices) supervision besign of the coordination bharmacies stores, supervision to the supervision boordination to the supervision coordination and offer coordination to the supervision britting and distribution in the review format coordination collaborated and supervision and printing and distribution formats phone calls format besign and printing and supervision formats phone calls format besign and printing and supervision formats phone calls format supervision formats phone calls format supervision formats phone calls formats provided the supervision formats provided | Inform the collection | Flyers | Design of flyers, | Distribution (jointly | Distribution of all | Assistance in | Meetings with the | Technical |
| the Posters Buggin of the Groundation pharmacies stores, school and other signature (500) Advertising Coordination besign of the Signature in the Signature of the Point, etc. Invoice Coordination Coordination (500) Interview format Supervision Coordination (500) Interview format Coordination (500) Int | frequency and schedule | (30,000) | Coordination, | with the payment | the flyers in | designing | Neighbors | assistance, |
| transitional draft, coordination pharmacies stores, solool and other sign bearing of the pharmacies stores, school and other entities of the PPP area signboards draft, coordination slighbors boaters, posters, organization, slickes, Power residents explanation to the Point, etc. Interview format Supervision coordination formats, phone calls Format Posters Design of the Assistance in the entities of the PPP area continuation of the entities of the PPP area installation entities of the PPP area coordination to the signing and distribution formats, phone calls Format Posters Design of the Assistance in the entities of the PPP area coordination formats, phone calls Monitoring in field | and the basic rules to the | | supervision | invoices) | specific areas | | Committee | production and |
| Hermacies stores, and affice ordination in a condination in a sign of the sign | community in general | | | | | | | printings |
| groceries stores, supervision supervision by armacies groceries stores, supervision by armacies groceries stores, supervision designing draft, coordination (50) supervision (50) supervision by a coordination to the Point, etc. Interview format Supervision coordination coordination design of the Point etc. Format Supervision by a coordination coordination coordination coordination by a coordination coordination coordination formats phone coordination coordination coordination by a coordination | Inform the residents about | Posters | Design of the | Distribution in | Distribution in | | Meetings with the | Technical |
| Advertising Design of the signature in the signboards draft, coordination tet. Flyers, posters, Power explanation to the Point, etc. Interview format Supervision Coordination Coordination Format Design and Phone calls Advertising Design of the Assistance in the area area installation Supervision designand designing area area Fromat Supervision Production, printing and distribution coordination and calls Format Design and Phone calls Advertising Advertision designand area - Procedures and installation | the basic rules of discharge | (200) | draft, coordination | pharmacies | groceries stores, | | Neighbors | assistance, |
| Advertising Design of the signing area signboards draft, coordination designing slides, power explanation to the Point, etc. Invoice Supervision, coordination a Supervision of formats Format Entry | manners (in areas of | | supervision | | school and other | | Committee | production and |
| Advertising Design of the signing besign of the signing and draft, coordination (50) Elyers, posters, Power explanation to the Point, etc. Invoice Supervision Interview format Coordination coordination Format Format Advertising Design of the Coordination of the Coordination Coordination Flyers, posters, Organization, Elyens, printing and distribution coordination and Coordination Coordin | collection payment areas and other areas) | | | | entities of the PPP area | | | printings |
| signboards draft, coordination designing elements supervision supervision supervision supervision (50) Flyers, posters, Organization, explanation to the Point, etc. Supervision of the coordination to the production, printing and distribution coordination formats, phone calls when supervision and production calls when the coordination calls as the coordination calls when the coordination calls where the coordination calls when the coordination calls when the coordination c | General information to the | Advertising | Design of the | Assistance in the | | Procedures and | | Technical |
| Flyers, posters, Organization, slides, Power explanation to the Provision Point, etc. Provision Point, etc. Provision Posign, etc. Provision Posign, etc. Provision Production, production, production, production, printing and distribution Interview format Supervision, coordination Phone calls Pome calls Pome calls Phone calls Pho | sector community of the | signboards | draft, coordination | designing | | installation | | assistance, |
| Flyers, posters, Organization, slides, Power explanation to the Point, etc. Ces Invoice Supervision brinting and distribution Interview format Coordination calls Format Design and supervision Format Every posters, proving in field calls Format Element Supervision calls Format Element Supervision organization formats, phone calls Format Element Supervision formats, phone calls Format Design and Phone calls Format Posterision calls Format Format Phone calls Format Format Format Formats Format | P/P area (in streets and | (20) | supervision | | | | | production and |
| Flyers, posters, explanation to the slides, Power Residents Invoices Invoice Interview format Coordination Condination Format Format Supervision Format Format Format Supervision Form | roads) | | | | | | | printings |
| Committee slides, Power explanation to the Point, etc. Supervision Supervision Interview format Coordination Format Format Supervision Format Format Supervision Format Format Supervision Format Format Supervision Format Format Format Posign and Phone calls Monitoring in field | Meetings with the | Flyers, posters, | Organization, | • | | • | Provision | Technical |
| ugh the invoices Invoice Supervision Design, production, printing and distribution Coordination formats, phone calls Format Design and Phone calls Monitoring in field | Neighbors Committee | slides, Power | explanation to the | | | | | assistance |
| Interview format Supervision, printing and distribution coordination formats, phone calls Format Design and Phone calls Monitoring in field | Inform through the invoices | Invoice | Supervision | Design | | | | |
| Interview format Supervision, Design of the coordination formats, phone Format Phone calls Monitoring in field | | | | production, | | | | |
| Interview format Supervision, Design of the calls Format Supervision Coordination formats, phone calls Format Format Supervision Design of the calls Format Coordination Format Anonitoring in field Format Form | | | | printing and distribution | | | | |
| coordination formats, phone calls Monitoring in field - Format Phone calls Monitoring in field - | Interviews | Interview format | Supervision, | Design of the | | | | Technical |
| Format Design and Phone calls Monitoring in field supervision | | | coordination | formats, phone calls | | | | assistance |
| | Monitoring | Format | Design and | Phone calls | Monitoring in field | 1 | | Technical |
| | | | supervision | | | | | assistance |

c.1 Environmental Management and Urban Cleansing Directorate

The Environmental Management and Urban Cleansing Directorate (EMUCD) are responsible for the urban area cleansing of the National District. EMUCD is responsible, in addition to SWM, for all aspects of environmental quality. Under this Directorate works the Customer Service Department and the Environmental Information Center related to the pilots projects.

c.2 Customer Service

The functions of the Customer Service Department organized inside the Environmental Management and Urban Cleansing Directorate (EMUCD) are to promote and coordinate actions, and guarantee the sustainability of the citizen participation projects. This Department will coordinate the activities for the promotion of the citizen participation with AAA Dominicana, the Environmental Information Center, the Youth's Department and the Urban Animation and Citizen Education Directorate, and others.

This Department conformed by the personnel of the C/P during the PP had active participation in the implementation of the pilot project for Promotion of Citizen Participation (preparation of information materials, coordination with the different pertinent organizations, implementation of opinion surveys, distribution of information materials, meetings with the community, follow-up of the PP activities, etc.) with the support of the JICA Team.

c.3 Environmental Information Center

The Environmental Information Center provides an environmental information service by means of data diffusion and documents relative to the environment and natural resources as forms of preventing possible deterioration of the environment and potential damage to health. The Center will also provide information related to solid waste management and the facilities for community meetings. If necessity requires it, they will also carry out education activities and residents awareness in order to develop and strengthen the integral solid waste management in the National District area.

During the implementation of the pilots projects the CIA provided the facilities and the place to develop environmental education workshops (PPP) and meetings with the community (PP).

c.4 Youth Department

The mission of the Youth Department is to program and coordinate the youth's activities in the projects of the Urban Animation and Citizen Education Directorate.

In the PPP and PP, this Department collaborated in the distribution of information toward the community (leaflets, posters, verbal communication, etc.) through the group of youths under the supervision of the Customer Service Department.

c.5 Urban Animation and Citizen Education Directorate

The general functions of the Urban Animation and Citizen Education Directorate are to formulate and execute policies for citizen education and citizenship of the city, promoting the citizens' participation, and to pay attention to the education and orientation of the citizens on SWM and the preservation of the environment.

In the PPP this directorate supported the preparation and production of messages recorded for loudspeaker announcements to diffuse information to the residents about collection days and discharge hours. During the development of the PP they cooperated in the design of "banners" for signboards and their installation in sectors of the PP area to promote citizen participation through advertising signboards.

c.6 Communication and Press Directorate

This Directorate is in charge of the communication and press in the Municipality. During the PPP they promoted the activities of the project through the internal press of the Municipality.

c.7 AAA DOMINICANA, S.A.

AAA Dominicana known as Triple A, is a Dominican commercial society, created in April 2000 according to the laws of the Dominican Republic, their social object is to provide public waterwork services, sewage system, cleansing and other complementary activities to these services.

The social capital of the company is integrated of 50% by Dominican investments and 50% by Colombian and Spanish investments through AAA Services, S.A. who, in addition to being shareholder of the company, is the company operator in charge of the management and administration of AAA Dominicana, S.A.

In their organization there is a section, the Waste Billing and Collections, Billing and Tributes Customer Service that is directly related to the EMUCD. Their activities related to SWM are the following:

- Emission and delivery of invoices
- Customer service
- Collection management
- Collection and digitations of payments
- Users cleaning cadastre and maintenance of the database

The company also gives a service to the ADN in the field of billing of tributes, it is also linked contractually with the Waterworks and Sewer Corporation of Santo Domingo (CAASD), and it also provides services to the Municipalities of Santo Domingo East and Santiago de los Caballeros in the commercial cleansing management, tributary administration and municipal taxes.

The **Customer Service Office** of Triple A, whose office is related to the Project Pilot of Citizen Participation, has 6 employees.

This office carries out the following activities:

- Attention to clients
- Reception, removal and analysis of claims, complaints and applications
- Realization of payment agreements
- Reception and application of payments
- Tele-payment
- Customer service for consultation of clients' balances and taxpayers.

During the implementation of the pilot projects (PPP and PP) the Customer Service Office cooperated actively in the realization of public opinion surveys, training the C/P on the survey methods and telephone calls, and follow-up. It also diffused information of the collection days and hours through invoices (PPP and PP) and distribution of leaflets jointly with the invoices (PP) and related activities.

d. Information Material Used

In the Pilot Project several information tools were used to reach the residents. Meetings with the neighbors' committee were carried out as means of interactive communication to inform the citizens of the new service and also to obtain their points of view. Flyers were distributed with information of the new collection service jointly with the collection invoices and the direct distribution to every house. Also, posters were placed in grocery stores and in waste tariff payment shops, and "banners" in advertising billboards at bus stops areas.

The designed information tools below were presented and produced to promote the citizen participation.

d.1 Flyers (30,000 units)



Flyer (front)



Flyer (back)

d.2 Poster (500 unit)





d.3 Advertising signboards (50 units)







Signboard installed

Design 1

Design 2







Design 3

Design 4

Design 5

d.4 Message recorded for the phone calls

Route and Frequency 1

The ADN begins a new collection waste system in your sector. Discharge your waste in closed plastic bags on MONDAYs, WEDNESDAYs and FRIDAYs. For further information call to 809-534-5666 ext 221. "Help us live in a clean city"

Thank you

Route and Frequency 2

The ADN begins a new collection waste system in your sector. Discharge your waste in closed plastic bags on TUESDAYs, THURSDAYs and SATURDAYs. For further information call to 809-534-5666 ext 221.

"Help us live in a clean city"

Thank you

Route and Frequency 3

The ADN begins a new collection waste system in your sector. Discharge your waste in closed plastic bags from MONDAY to SATURDAY. For further information call to 809-534-5666 ext 221.

"Help us live in a clean city"

Thank you

e. Information Flow

The information tools presented previously were distributed to the citizens through each organization. The figure shows the flow of information to the resident.

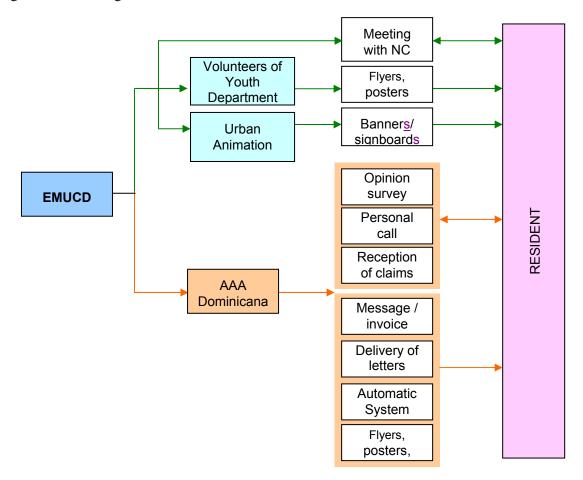


Figure V-2: Flow of the Resident Information

f. Work programs for the Promotion of the Citizen Participation

The following table shows the activities schedule in details:

Table V-3: Schedule for the Pilot Project of the Citizen Participation

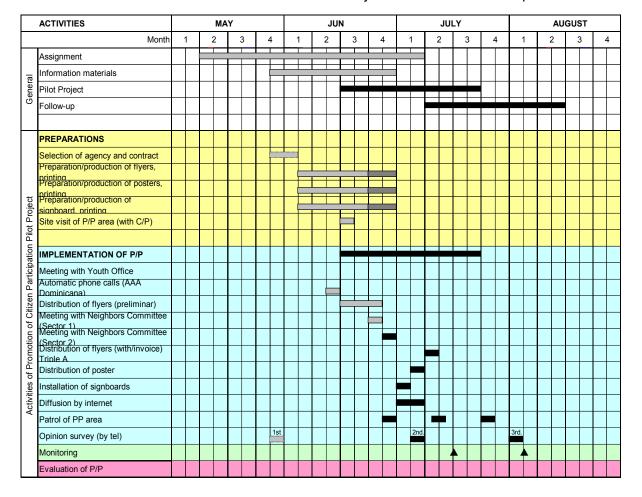


Table V-4: Activities of the C/P personnel

| | ACTIVITIES | | | MA | Υ | | | | | Jl | JN | | | | | JUL | Y. | | | | | AU | GUS | Т | |
|---|---|---|---|----|---|---|---|------|---|----|----|---|---|-----|---|-----|----|------|---|----------|---|----|-----|---|---|
| | Month | 1 | 1 | 2 | - | 3 | 4 | ļ | 1 | 2 | | 3 | 4 | 1 | : | 2 | 3 | 4 | 1 | | 2 | ? | 3 | | 4 |
| 1 | Distribution of flyers (with/invoice) (AAA) | | | | | | | | | | | | | | | | | | | | | | | | |
| | Report of flyer distribution result | | | | | | | | | | | | | | | | | | | | | | | | |
| | Distribution of poster in pharmacies and bank agencies (AAA) Distribution of poster in groceries, | | | | | | | | | | | | | | | | | | | | | | | | |
| | Distribution of poster in groceries, schools and institutions | | | | | | | | | | | | | | | | | | | | | | | | |
| | Site investigation for signboards | | | | | | | | | | | | ļ | | | | | | | | | | | | |
| | Installation of signboards (Urban Animation and Citizen Education) | | | | | | | | | | | | | | | | | | | | | | | | |
| 4 | Opinion survey (by phone calls) | | | | | | | 1st. | | | | | | 2nd | | | | 3rd. | | | | | | | |
| | Patrol of PP area | | | | | | | | | | | | | | | | | | | | | | | | |
| | Results and preparation of opinion survey report | | | | | | | | | | | | | | | | | | | | | | | | |
| 5 | Monitoring | | | | | | | | | | | | | | | 4 | \ | | 4 | \ | | | | | |
| | Results and preparation of monitoring report | | | | | | | | | | | | | | | | | | | | | | | | |
| 6 | Evaluation of P/P | | | | | | | | | | | | | | | | | | | | | | | | |

V.3 Results

a. Effects of the information tools

The flyers were the most effective means for the communication of the new collection service to residents. It is difficult to measure the effectiveness of the posters and advertising signboards; however, they are considered as an important mass media communication tool. The information written in the payment invoices has had little impact on the receivers. The meetings with the neighbors committee were effective in sectors where the residents have participated actively. In the following table a summary of the results is shown.

Table V-5: Effects of the information tools implemented in the PPP and PP

| Activity | Area | Descriptions | Effects |
|--|------------------|--|--|
| Distribution of flyers, information through verbal communication | PPP | Before the execution of the PPP with 70,000 people in Sector 6, 20,000 flyers were distributed through the Neighbors Committee, ADN sweeping personnel and with the participation of 120 students of secondary informing the days of waste collection. | According to the phone survey carried out by Triple A, the distribution of flyers has been the most effective means of information communication tool to the residents. |
| | PP | 30,000 flyers were produced, of which 20,000 were distributed jointly with the payment invoices by AAA Dominicana; about 8,000 flyers were distributed in selected areas to reinforce the information by volunteers of the Youth's Office and the remaining 2,000 were distributed during meetings with the neighbors' committee, grocery stores, institutions, etc. | Both in the PPP and PP areas the most effective means of information tool has been the distribution of flyers. |
| Announcements by loudspeakers | PPP | Announcement of the collection days and hours have been carried out to complement the flyers. | It has not been possible to check the effectiveness of this means. |
| Distribution of posters | PP | The posters were distributed in all the grocery stores (near 100) and schools of the PP area by the volunteers of ADN Youth Office. They were also distributed to pharmacies where payment of the invoice for the cleansing service by AAA Dominicana is carried out. | Visual information to the public in general. The measurement of its effectiveness is in process. However, it seems very important its production and distribution. The effectiveness as information mean occupied the second place after the flyers. |
| Information written in the payment invoices | PPP and PP | All the clients of the collection service receive the payment invoice where they could be informed of the schedule and days of collection. | All the clients receive the invoice which is an advantage. However, the disadvantage is the written note, which is very small due to a lack of space in the invoice, which can be ignored by the receivers. However, in the PP area this means was reinforced with the combined delivery of flyers. |
| Meetings with the leaders of Neighbors Committee and the residents | PPP and PP | The Neighbors Committee is an organization of the community that exists in many places in the Study Area, although its capacities vary. This social capital is effective not only to inform the residents but also to promote them. Before and during the implementation, if it works well, some | The information through the Neighbors Committee has been very effective in those sectors where the participation of leaders of the Neighbors Committee has been very active. |

| Activity | Area | Descriptions | Effects |
|---------------------------|------|--|--|
| | | meetings should be carried out with the members of the Neighbors Committee of the target area. | |
| Advertising signboards in | PP | 50 advertising signboards were installed in the PP area with phrases such as: | Most of the signboards have been installed at bus stops in the |
| public roads | | "How beautiful is to live in a clean city! ", "The waste problem is solved by all", "In the bag it looks better", "In the container it looks better", "as well as taking care of your house take care of your city." | PP area and surroundings |

b. Achievements of the experience of the P/P

With the purpose of measuring the achievements, surveys were conducted to compare the changes experienced through implementation of the Project.

In the Pre-Pilot Project (PPP) four surveys were carried out, the first related to the satisfaction of the residents regarding the collection service, the second one on the announcement and reception of the PPP, the third on the follow up of the results of the PPP and the last one, on the results of the PPP. In sector 6 a sample of 400 houses was taken in each survey.

In the Project Pilot (PP) two surveys were conducted (before and after the PP), measuring the following variables: frequency of the collection service, the quality, the knowledge, discharge manners, the communication between the ADN and the residents, the participation of residents in information meetings and the practices associated with the appropriate SW management, and others. A total of 302 housings were surveyed, both in the initial and in the final phase.

b.1 Surveys carried out in the PPP

b.1.1 First survey on the satisfaction of the users' of the waste collection service in the Sector 6

1) Outlines

The first survey was carried out in the week from the 7th to the 14th of October 2005. It was carried out in different urbanizations of sector 6, such as: Jardines del Sur, Alfimar, José Contreras, Miramar, Nordesa, Enriquillo, INVI, among others. A sample of four hundred (400) residents was surveyed in this sector to measure the people's satisfaction in regard to the current waste collection service provided by ADN. The survey was conducted by phone and the participants answered the following questions:

2) Questionnaire

- 1) Do the trucks pass by your sector to collect the waste?
- 2) How do you evaluate the frequency of the trucks to collect waste?
- 3) Do you pay the waste collection service fee?
- 4) Why you do not pay the waste collection service?
- 5) In general, how do you evaluate the waste collection service?
- 6) What do you think should improve with regard to the waste collection service in the city?
- 7) According to you, what must be improved with regard to the collection service in the city?

3) Results

89% of those interviewed said that the trucks pass by their sector to collect the waste while 11% said that they do not pass by.

89% of those interviewed said that their waste is collected, 49% said that the trucks pass with little frequency, 26% said that the trucks pass irregularly and 25% said that they pass frequently.

Only 46% answered that they do not to pay the waste collection fee, while 54% said that they pay it (a curious fact according to Triple A, since of the sample taken, more than 95% have more than 6 pending invoices payment).

Of this 46% that does not pay the invoice, 31% said that the fee is very high, 46% said they do not receive the appropriate service, 9% does not receive the invoice, 4% receives the service from a private company and 10% admits to not paying due to irresponsibility (they do not want to, they are not forced, among other answers of this type).

In general, 54% of the participants qualified the waste service as regular, 28% qualified it as good and 18% as bad.

Within the aspects that the residents of the sector 6 think should be improved regarding the waste collection service in the city, 63% coincided in that the most important thing is the improvement of the quality of the service, pointing out important points such as clean collection (without scattering waste in the street neither spill of liquids, less noises by the trucks, placing the containers in the original position once the waste is collected, etc.); 11% considers that more containers should be installed in public areas, 5% considers streets sweeping to be important and in response to the question "According to you what must be improved with regard to the service of collection in the city?", 20% emphasized setting schedules to regularize the waste collection service in a permanent way.

b.1.2 Second survey on the announcement and acceptance of the PPP in Sector 6

1) Outlines

The second survey was carried out in the neighborhoods of the sector 6: Jardines del Sur, Buenos Aires, Miramar, Tropical, Honduras, and Costa Verde. A sample of four hundred (400) residents was surveyed in this sector to measure the acceptance of the PPP. The survey was conducted by phone and the participants answered the following questions:

2) Questionnaire

- 1) Have you heard about the Pilot Project that the ADN initiated to improve the waste collection service?
- 2) How did you find out?
- 3) Do you know what days you should take out the waste?
- 4) Do you know what time you should take out the waste?
- 5) In general, how do you evaluate the plan for this project? (Frequency established, collection schedule, information delivered, etc.)

3) Results

58% of those interviewed said they did not to know anything about the pilot plan while 42% knew about the project.

Of the 42% of those interviewed who said that they knew of the Pre- Pilot Project, 60% was informed through the flyers distributed in the different sectors, 29% knew from invoices and 11% through the neighbors committee meetings.

In another order of ideas, 100% of those interviewed who knew about the Pilot Project, knew what day and time they should take out the waste.

The project was evaluated by those interviewed in the following way: 60% considered it to be regular, 34% evaluated it between excellent and good while 6% considered it to be bad.

4) Comments

The survey left a blank space so that those interviewed could give their suggestions or comments regarding the plan that is been carried out. Among these comments the most common are the following:

- That the trucks are staying at Ave. Independencia and that they have to walk a lot to discharge the waste.
- That they pay to particulars so they can take the waste and that they are not interested in what ADN is doing now.
- That ADN is not performing the plan.

b.1.3 Third survey about the follow up of PPP results in Sector 6

1) Outlines

A sample of four hundred (400) residents was surveyed in this sector to measure the people's satisfaction with regard to the current waste collection service provided by ADN. The survey was conducted by phone and the participants answered the following questions:

2) Questionnaire

- 1) Are the trucks fulfilling the schedules and frequencies established for the waste collection in your sector?
- 2) Do you perceive some difference in the cleanliness of your sector?
- 3) Are you satisfied with the implementation of this new plan to improve the waste collection service?
- 4) Do you consider the communication that maintains the ADN with your sector to inform about the improvements that they are implementing to be effective?
- 5) Do you participate in the meetings of the neighbors' committee?
- 6) Does the neighbors committee communicate the changes and the plans implemented by the ADN in improvement of the services offered?
- 7) Would you prefer that the ADN communicates and informs the information to your sector in a more direct way?

3) Results

88% of those interviewed coincided that the trucks are fulfilling the frequencies and schedules established for their sector. 10% said that they are not and 2% said they do not know.

Of those interviewed, 87% perceived a difference in the cleanliness of the sector while 13% said they do not see a change.

Regarding the implementation of this pilot project to improve the waste collection service, 94% said they feel very satisfied while 6% is not very satisfied with the results obtained.

For those interviewed, 85% said that the communication that maintains the ADN has been effective. 15% considered that the ADN has not been sufficiently clear in their official statements and that they should improve.

Continuing with the information transmission part and follow up of the pilot project, 59% of the interviewees said they participate in meetings with the neighbors committee, 30% does not participate and 11% said that where they live they do not have neighbors' committee.

From the sectors that have a neighbors' committee, 54% coincided that the Presidents of these committees fulfill the duty of informing the plans of the Municipality for the improvement of the service. However, 46% says they did not.

When asking residents if they would prefer the ADN to communicate and inform the information in a more direct way, 61% of interviewees answered "yes" and 39% answered that it is ok for them to do it through the neighbors' committee.

The following suggestions were offered by those 61%:

- Meetings in the sector with all the residents (52%)
- Information should be given by phone (1%)
- A representative from the Municipality should participate in the meetings of the neighbors' committee of their sector (38%)
- Communication should be written and given to every sector resident (9%)

b.1.4 Fourth survey about the PPP results in Sector 6

1) Outlines

A sample of four hundred (400) residents was surveyed in this sector to measure the people's satisfaction with regard to the current waste collection service provided by ADN. The survey was conducted by phone and the participants answered the following questions:

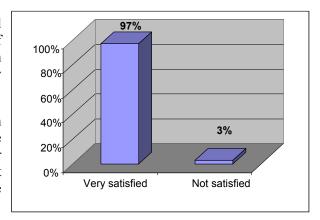
2) Questionnaire:

- 1) Are you satisfied with the implementation of the PPP to improve the waste collection service of your sector?
- 2) Do you agree with the collection frequency that was established in your sector?
- 3) Do you consider the communication implemented by ADN on the setting of the plan carried out through flyers, communication letters and loudspeakers to be effective?
- 4) Would you be willing to cooperate in a recycling project?
- 5) What is your opinion of the trucks that are collecting solid waste?
- 6) Do you agree with the fee established for the collection of waste collection service?

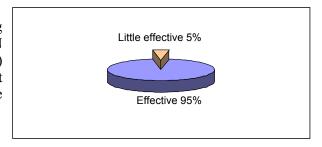
3) Results

97% of those interviewed said they feel very satisfied with the implementation of the plan to improve waste collection service. 3% said they are not very satisfied.

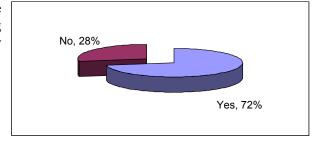
The 97% that is satisfied with the plan agreed with the frequency and the schedules established for their sector while the remaining 3% that is not satisfied, showed disagreement with the logistics of the plan.



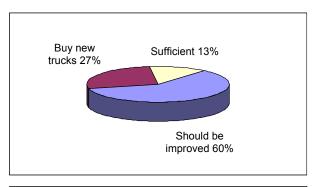
With regard to the communicating method implemented by the ADN (loudspeakers were already included) 95% of those interviewed considered that it was very effective while 5% said the opposite.



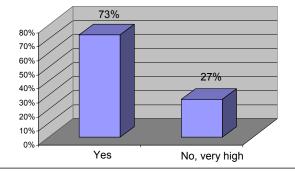
72% of the interviewees said they are willing to cooperate with a new recycling project, while 28% answered negatively to this question.



When asked their opinion about the conditions of the trucks, 60% said that the quality of the trucks should improve, 27% considered that new trucks should be bought and 13% said that they are sufficient.



With regard to the fee established for the waste collection service, 27% said they do not agree with it because the amount is very high, while 73% agreed with the amount established.



b.2 Surveys carried out in the PP

b.2.1 First survey on solid waste collection system in the PP area

1) Outlines

During the week of May 30th to June 2nd of 2006, surveys of the community of the PP area (Sector 05) were carried out from the offices of AAA Dominicana with the participation of the C/P personnel and volunteers from the Youth Office of ADN. The survey was carried out under the assistance of the S/T and the supervision of AAA Dominicana by C/P personnel (Lic. Joselyn de la Cruz and Engineer Sergio Vargas) and two volunteers from the Youth Office.

The following is the result of the survey carried out in the different areas of sector 05, such as: Renacimiento, Cacicazgos, Bella Vista, Mirador Norte, Mirador Sur and El Manguito.

A sample of 302 houses were surveyed in this sector taking proportional samples of each area to measure the quality, payment, application of rules and the satisfaction of the current waste collection service provided by the ADN.

This survey was carried out by phone and those interviewed answered the following questions:

2) **Ouestionnaire**

- P1. Do the trucks pass by your sector to collect the waste? How frequently?
- P2. Who discharges the waste from your house?
- P3. Do you pay the waste collection service fee?
- P3.1 If you do not pay indicate the reason.
- P4. If rules are applied to improve the waste discharge manners by establishing a day and time schedule, would you willing to cooperate?
- P5. Are you satisfied with the waste collection service?
- P6. If you are not satisfied, please give the reason.

Interviewees

| Person | No. | % |
|-------------------------|-----|--------|
| Head of family (f) | 59 | 19.53 |
| Head of family (m) | 42 | 13.91 |
| Maid | 68 | 22.52 |
| Doorman/janitor | 8 | 2.65 |
| Son/daughter | 59 | 19.54 |
| Grandfather/grandmother | 12 | 3.97 |
| Shop employee | 37 | 12.25 |
| Shop manager | 17 | 5.63 |
| Total | 302 | 100.00 |

3) Results

P1. Do the trucks pass for your sector to collect the waste? How frequently?

96.02% of those interviewed (290 people) answered that the trucks pass by their sector to collect waste, while 3.98% (12 people) say they did not.

From those interviewed, 38.74% affirmed that the trucks pass every other day, 5.96% said that they pass more than twice a day, 4.64% said that they do not know when the trucks pass, 27.15% said that they pass every day, 9.60% said that they pass once every two weeks, while 9.93% said that they pass once a week.

P2. Who discharges the waste from your house?

40.40% of those interviewed said that the waste is discharged by the maid, 23.50% said that is taken out by a doorman, 13.25% said that it is discharged by the head of family (f), 11.92% said that it is discharged by the head of family (m), while 10.93% said that all the members of the family discharge it.

P3. Do you pay the waste collection service fee?

From all of the interviewees, 86.75% said that they pay the waste fee and only 13.25% admitted to not paying the waste fee.

Of those that do not pay (13.25%), 3.32% does not pay it because they are exonerated from this payment, 0.77% said that the fee is very high, 1.86% does not receive the invoice, 2.0% said they do not know where to pay it, 3.0% said they do not receive the appropriate service, 0.44% does not know and 1.86% said they do not have sufficient economic resources.

P4. If rules are applied to improve the waste discharge manners by establishing a day and time schedule, would you willing to cooperate?

Only 1.0% of those interviewed said they would not be willing to fulfill the rules in the event of applying them, while 99.0% said they would be willing to fulfill them.

P5. Are you satisfied with the waste collection service?

73.51% said they are satisfied with the service and only 26.49% said they are not satisfied with the waste collection service.

P6. If you are not satisfied, please give the reason

Of those that answered that they are not satisfied (26.49%), 10.60% claimed that after the elections they have been neglected, 2.12% said that over one month passed without the truck passing by, while 13.77% said that the truck does not pass by frequently.

4) Most common comments

- The collection trucks should pass by more frequently.
- The days and schedules established to discharge the waste are only used in "barrios".
- If day and time schedules are established they should fulfill them.
- The workers must pick up the waste better, that is to say not to spread waste along their route, reduce the noise and the leached.
- If the old bills free him they could be updated.

b.2.2 Second survey on satisfaction follow up on the new waste collection system

1) Outlines

The following is the result of the survey carried out in the different neighborhoods of the sector 05 (Bella Vista, Cacicazgos, Mirador del Norte, Mirador del Sur, Renacimiento and Los Manguitos), during the last week of July 2006.

To measure the acceptance of the Pilot Project "Clean City"; the urbanizations and neighborhoods were selected in a random way and taking into account that they are included in the three frequencies designed for this plan; "Monday, Wednesday and Friday", "Tuesday, Thursday and Saturdays" and "Monday to Saturdays". Equally it took the quantity of inhabitants of each neighborhood as a reference and the total sample was of 302 residents being a representation of 5% of the administrators of houses.

The survey was carried out by phone and those interviewed answered the following questions:

2) Questionnaire

P.1 About the knowledge of the new collection system

- P.1a Are you informed about the new waste collection system that was implemented in your sector or neighborhood?
- P.1b How did you know about it?
- P.1c Do you know what days and at what time the waste collection truck passes by?
- P.1d Do the trucks fulfill the collection schedule and frequency in your sector or neighborhood?
- P.1e Do you discharge the waste only on the established days?

P.2 Regarding the quality of the service

- P.2a Do you perceive some difference in the cleansing conditions of your sector or neighborhood? Is the change good or bad?
- P.2b Do you consider the quality of the service to have improved?

P.3 Regarding the citizen participation and information

- P.3a Have you participated in workshops or information meetings of this "Clean City Project"?
- P.3b Do you consider the communication between the Municipality and your sector or neighborhood to be effective?
- P.3c Do the neighbors committee communicate to you about the changes and the plans of the Municipality about the waste collection service?

3) Results

P.1a Are you informed about the new waste collection system that was implemented in your sector or neighborhood?

60% of those interviewed affirmed to be informed of the new waste collection system that was implemented in their sector, while 40% alleged not to be informed.

P.1b How did you know?

100% of those interviewed that knew about the Pilot Project, were informed by the following ways:

- 2% by telephone calls
- 15% by posters
- 1% by radio
- 10% by meetings with neighbors' committee
- 72% by flyers

P.1c Do you know what days and at what time the waste collection truck passes by?

Of those that knew about the new collection system, 100% was informed about the route and

frequency of the truck. Equally 13% of those not well-informed knew the day and hour that the collection truck passes by.

P.1d Do the trucks fulfill the schedules and frequency of the collection in your sector or neighborhood?

70% of those interviewed confirmed that the trucks fulfill the schedules and frequencies of the waste collection in their sector. While 30% considered that they were not sure of its fulfillment.

P.1e Do you take out the waste only on the established days?

83% of the total of those interviewed affirmed to taking out the waste on the established days. While 17% alleged not to be sure about fulfilling the schedule and frequency.

P.2a Do you perceive some difference in your sector or neighborhood cleanliness? Is the change good or bad?

According to 94% of those interviewed in general affirmed that a positive change exists in the cleaning of their sector. While 5% considered that it should improve the waste collection service. Equally there is 1% that pointed out that they have not seen any changes.

P.2b Do you consider the quality of the service to have improved?

Generally 93% perceived that the quality of the service in their sectors has improved considerably. While 7% considered that it should be improved.

P.3a Have you participated in workshops or information meetings on this "Clean City Project"?

13% of the total of those interviewed affirmed to have participated in workshops and meetings carried out by the Municipality and 87% of those interviewed affirmed that they have not participated.

P.3b Do you consider the communication between the Municipality and your sector or neighborhood to be effective?

83.11% of the total considered the communication between the Municipality and its sector to be effective. While 16.56% assured that effective communication does not take place. Equally 0.33% alleged to ignore the communication.

P.3c Do the neighbors committee communicate to you about the changes and the plans of the Municipality about the waste collection service?

30% of the total of those interviewed have been informed through the Neighbor Committee meetings of its sector regarding overall information, plans and changes related to the services provided by the ADN. While 70% does not participate with neighbor committee meetings.

4) Comments

Some relavant comments to improve quality are that the operation personnel should be trained, so that when they are collecting waste they are careful to not spoil the bags and spread waste in the streets. Other comments are that the prudence of the drivers must be improved because they often cause traffic jams on the roads.

V.4 Conclusions and Recommendations

a. Conclusions

a.1 Achievements of Results Expected

Before the pilot project, communication between the EMUCD and the residents consisted only of receiving the residents' complaints through Triple A. For the implementation of the project, 2 people from the C/P were assigned for Customer Service. They acquired several abilities such as coordinating with departments related to communication with the residents, and also how to design and distribute information tools and how to carry out meetings with the neighbors committee.

The Environmental Information Center has facilities available where residents can meet and is equipped with a projector and a computer donated through the cooperation of JICA. In the pilot project the facilities worked in a satisfactory way to carry out the meetings with the Neighbors Committee.

The results of the survey carried out for the residents showed that the flyers have been very effective for communicating information to the residents. A great number of the flyers were distributed directly by volunteers from the Youth's Department. This direct distribution, person to person, revealed the importance and the effectiveness of the communication of information.

The Urban Animation and Citizen Education Directorate controls the private companies that operate the means of advertising that are placed in public roads and the bus stops. It was verified that these means turned out to be very effective for publicizing SWM.

The Communication and Press Directorate is in charge of the communication and press of the Municipality. They can inform the media about Customer Service activities, as well as to diffuse the achievements, actions and projects to the community in general through the massive means of communication.

AAA DOMINICANA S.A. carried out important work in the Pilot Project carrying out several activities like sending flyers to the residents jointly with the invoices, sending notes in invoices with informations of the new service and distribute posters in places where the quota of the service is paid (pharmacies and other places) and carrying out a survey of residents through telephone calls. The work carried out was reliable and of high quality.

a.2 Achievements of the Goal and Purpose of the Project

The goal of the Pilot Project was directed toward the residents of sectors 5 and 6 (refer to the Pilot Project of Improvement of the Collection Service) to have access and understand information related to SWM such as the waste collection service and discharge manners.

From the results of the resident survey, it was possible to detect that the majority of the residents have had access to the information about the new service. Besides, the information was well communicated, and the residents had knowledge of the collection day and also the appropriate behavior to discharge waste and other related aspects. Therefore, the different information tools such as flyers, posters and the contents used to communicate the information were very suitable for the purpose of the project.

However, approximately 40% of the residents of the PP area do not have knowledge of the implementation of the new service and this suggests the necessity of the communication of additional information.

On the other hand, the objective of the project was to build a model to communicate the

information about SWM to residents, and through the implementation of the Pilot Project, reinforce the capacity of the ADN to communicate with residents. Thus in that sense, it has carried out the communication of the ADN to the residents. There are several departments related, and through appropriate coordination they can work well.

First to mention that, through the implementation of the Pilot Project it has become evident that Triple A has the facilities in their organization for communication with the residents, for example receiving and assisting complaints and through these daily activities, they accumulate many knowledge and related techniques.

b. Recommendations

- To improve the coordination among the related departments in the ADN, including to Triple A, the Customer Service of the EMUCD should reinforce these facilities continually. It is recommended that the activities carried out in the Pilot Project are transformed from special events to routine activities through the preparation of an activities manual and begin the classification of the details of the activities and functions of the office.
- There is the problem in the departments in the municipal offices of not having with opportunely funds that are essential to carry out the activities. Therefore, it is suggested that a Mixed Fund is created with the Triple A to subsidize the costs of information materials such as flyers and posters.
- The production of the information materials does not require big costs, except some
 design aspects. The JICA Study Team has given all the negatives, original sheets and
 CD for the reproduction of the information materials. Therefore, the Environmental
 Management and Urban Cleansing Directorate within their financial possibilities or
 through the Mixed Fund can follow-up the production of the information materials for
 other sectors of the National District.

Annex W

Guidelines for Citizen Participation Activities

Contents

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| | W.1 | Guidelines | W-1 |

W Guidelines for Citizen Participation Activities

W.1 Guidelines

a. Preparation

- 1) The development of relations of participation and planning with community organizations (Neighbors' Committee), is essential for the success of the meetings with the community. The activities that must be considered are:
- Arrangement of agenda
- Formulation of clear goals
- Leadership
- Diffusion
- 2) To educate the community allowing equality in the participation and to provide knowledge and valuation of waste.
- 3) To prepare specific materials related to SWM.
- 4) To assign a facilitator who is sensitive and trained in SWM aspects.

b. Participants

- 1) Communities of pilot project area and interested communities:
 - Community and Neighbors' Committee
 - Educational establishments
 - Government agencies (state, municipal, local, etc.)
 - Non-governmental organizations (NGO)
 - Clubs
 - Churches
- 2) To identify interested groups, including:
 - Educational institutions
 - Communities with problems and/or interests
 - Public policies and decision making (for example, representatives of responsible agencies, ADN, as well as officials of health and environment.



Meeting with residents of San José (PPP)



Meeting with residents of Bella Vista (PP)

c. Logistical Support

| Where | When | How |
|---|--|--|
| The meetings have to be accessible to all the interested parties to participate. The meeting must take place in a convenient location (to consider facilities and suitable conditions) Appropriate materials and equipment will be used for better and effective communication with the participants. | The date and time for the meeting has to be conditioned to the needs of the communities (meetings in late afternoon or on weekends to accommodate persons who work are suggested, and to program carefully to avoid overlapping with other events of the community). | To create a participation environment (avoid the use of a "central panel" or "round table"). As many meetings as necessary in consultation with the community are suggested. The first day will be reserved for the explanation of the objectives of the meeting and planning. On the following day, educational programs, activities with the community participation and the achievement of general consensus must be carried out. The community and the government have to share leadership and presentations of his roles. |

d. Mechanisms

- To keep clear goals; nevertheless, they are not subject to them.
- To incorporate cultural links in the information presentation and in the agenda of the meetings.
- To assign a sensitive facilitator trained in SWM aspects.
- To coordinate the follow up through the development of an action plan and to determine
 a responsible person for the contact who is going to activate the work produced in the
 meeting.
- To distribute a list of items for the action to facilitate the follow-up.

e. Principles and guidelines for the practice of citizen participation

- 1) The process of citizen participation looks and facilitates the involvement of those that potentially are affected.
- 2) The process of citizen participation involves the participants in the definition of how they take part.
- 3) The process of citizen participation provides the participants the information that they will need in a significant way.
- 4) To involve the decisions of the public in the decisions on actions that affects their lives.
- 5) To encourage early on the participation for an active community.
- 6) To recognize the knowledge of the community.
- 7) To systematize methods of communication between the ADN and the community.
- 8) The participation of the citizens becomes institutionalized by means of the recognition and formalization of the process.
- 9) To create mechanisms and measurements to assure the efficiency of the participation of the citizens.

f. 3. Items for monitoring the citizen participation

1) To assure that the policies for citizen participation are consistent with the SWM requirements.

- 2) To obtain the support of high authorities to assure that the policies and activities should be effective.
- 3) Guides to organize public meetings.
- To recognize the community and respect gender and ethnicity.
- To encourage active participation of the community.
- 4) To identify external parties interested in SWM and to provide opportunities that offer input in the decisions that could affect the health of the residents, the value of property and the living surroundings. As minimum, consider the following organizations as be appropriate:
- Environmental organizations
- Commercial organizations
- Stakeholder, interested civic/public groups.
- Community base organizations (Neighbors' Committees)
- Land owners and residents
- State and local government
- 5) Identify key individuals who could represent diverse groups of interest. To know as much as possible about the interested parties and their concerns through personal and phone consultations or contact by writing. To assure that the technical information collected, includes modifications for marginal area communities and low income communities (for example, to consider language and cultural barriers, technical backgrounds, literacy, access for those who answer, confidential matters and the preferred type of communications).
- 6) To request early on the involvement of the parties interested in the process of the decision making, which begins with the planning and development of every stage and continuing across the implementation and to be vigilant.
- 7) To develop relations promoting participation and planned with the community organizations.
- 8) To establish a main topic to support the dissemination of information, to solve problems, serve as a public defender and to bear in mind aspects that can affect the people health and the environment.
- 9) The materials must be adapted to the region or locality to assure cultural sensibility. To allow the information to be easily available. To prepare the pertinent information and the bulletin of the information in the common language of the population.
- 10) To ensure that all the Customer Service Office (ADN) personnel clearly understand the policies to transmit information to the residents, with accessibility and comprehension.
- 11) To establish or to reinforce the Neighbors' Committee in specific areas where sufficient interest exists. To determine if sufficient interest exist, as a minimum, to carry out interviews with local members of the community. To assure that the representation of the community includes all the aspects and diversity of the population.
- 12) To plan meetings with accessibility and in a friendly way for all stakeholders regarding SWM. To consider the time not to have conflicts with working hours, traffic peak hours, lunchtime and other commitments of the community that might interfere and reduce the attendance. To consider locations and facilities that should be in the PP area and that should represent neutrality. To announce the meeting and agenda proposed on time, using the most suitable information tool. To provide a phone number and/or address allowing the communities to know about meetings, related matters and they can introduce their concerns or change the agendas of meetings.
- 13) To consider other tools to increase the participation of the parties interested in SWM.
- Exhibition panels
- Participation in activities of the community
- Source of public information
- Training and education programs, workshops, etc.
- 14) To be sure that all the trainers have a good understanding of the topic in question, technically and administratively. The trainers are the ambassadors of the program. If they do not understand, then nobody else will.

- 15) After holding a meeting in a community, establish a procedure to give a follow-up with concrete actions to matters of the communities. This helps to establish credibility for the agency (ADN).
- 16) To promote inter-agency coordination. The environmental problems cannot be solved individually. The solutions is that many agencies and other interested parties need to work together effectively.
- 17) To educate the interested parties and residents about all SWM issues (knowledge on SWM, functions, roles, jurisdiction, structure and action).
- 18) To establish an inter-agency working group (to all levels) to consider and coordinate the environmental issues.
- 19) To provide information to the community with reference to functions of the government as they have relevancy to the environmental needs and the long and short term effects on health.
- 20) To train personnel in order for them to support the coordination at an internal and integrated level in ADN, and to make them aware of the resources that are needed for such coordination
- 21) Provide ADN personnel who are trained in the technologies for community promotion.
- 22) To hold workshops, seminars and other meetings in order to develop associations among agencies, between workers and between community groups (assure that the mechanisms are in place in order for these associations to be implemented by cooperative agreements, etc.).
- 23) To provide an effective diffusion for education and communication. All findings must be shared with community members, emphatically respecting their ethnicity, gender and culture.
- 24) To design and implement efforts of an educational level according the size and needs of the communities and their specific problems.
- 25) To ensure active participation of the communities in the process of decision making to disseminate, educate, train and prepare programs with the community.
- 26) To coordinate and motivate institutions to improve the processes without bureaucracy and to be able to answer rapidly to the community.
- 27) To interlace environmental issues to the economic matters to increase the level of interest.
- 28) To use, as suitable, experts of the ADN to carry out reviews of the action plans.
- 29) Before holding the first meeting, prepare an agenda with the assistance of the community, other representatives and attendees.
- 30) To provide an "open environment and participation" to allow all community members to ask questions and identify issues in the community

Annex X

Training Workshop for the C/P Team

Workshops for the Environmental Education Pilot Project



Waste Minimization for a Clean City



Training Workshop for the C/P Team

November 2005 ~ February 2006

X. Workshops for the Environmental Education Pilot Project

X.1 Introduction

- X.1.1 Background
- X.1.2 Areas were the Environmental Education Pilot Project was implemented
- X.1.3 Implementation of the Environmental Education Pilot Project
- X.1.4 Methodology
- X.1.5 Summary of Activity
- X.1.6 Conclusions

X.2 Records of the Training Workshop for the C/P Team

- X.2.1 Introduction
- X.2.2 Methodology
- X.2.3 Program of the Training Workshop for the C/P Team
- X.2.4 Activities of the Workshop "Waste Minimization for a Clean City"
- X.2.5 Evaluation of the workshop by the participants
- X.2.6 Final Comments
- X.2.7 List of participants

X. Workshops for the Environmental Education Pilot Project

X.1 Introduction

X.1.1 Background

The Environmental Education Pilot Program starts in the frameworks of the Study on Integrated Solid Waste Management Plan in Santo Domingo de Guzman, National District Dominican Republic, carried out by the JICA Study Team and the Dominican Counterpart Team (C/P) integrated by ADN, SEE, SEMARN and SESPAS. It arises like a necessity to strengthen the environmental education in order to improve the solid waste management in the National District, in the formal and non formal environment.

The educational program has as central idea the training that includes formation actions directed to the C/P personnel, educators and to the community. The idea is that these groups trained can be able to train other persons in their influence areas (schools and communities). The program had identified the following objectives:

- Encourage the waste minimization for a clean and healthy city.
- Enhancement the citizen awareness related with the solid waste management.

To implement the pilot project three sectors has been selected (San José, Km 8 and Km 8½), but not limited to them. The personnel of the C/P will be in charge to select the schools.

Following the activities programmed, the training will start with the personnel of the C/P selected, because their functions is to guide and train the community. The objectives identified for the workshop are:

- Find an adequate education to encourage the minimization and enhancement the citizen awareness
- Know about the educational material prepared in other countries and it application in the ND.

Ending the workshop we expect that the participants could be able to train schools and communities, depending on the preparation level and the domain of the topics.

The methodology to be used in this workshop is participatory because we will start from the knowledge or the experience that each one has to the theory and then from the theory to the experience, in an action-reflection-action process. We will recreate our knowledge, putting them together and strengthening those concepts that are necessary.

X1.1.2 Areas to implement the Environmental Education Pilot Project

The areas selected to implement the project was the southwest of Circumscription 1, between the east of the Nuñez de Cáceres Avenue, Costa Verde near the Independence Avenue intersection and the south of the May 30 Highway.

X.1.1.3 Implementation of the Environmental Education Pilot Project

The Pilot Project started with the collaboration of the JICA Study Team and the Counterpart Team (ADN, SEE, SEMARN and SESPAS). Meetings were held to plan the action program and the activities chronogram to carry out.

JICA Study Team planned and implemented the workshop "Waste Minimization for a Clean City" to train the C/P personnel.

The activities were carried out under a close coordination and supervision of the actions programmed, in order to achieve the objective in a simple, creative and quality form.

X.1.4 Methodology

The methodology of the Pilot Project, was established in the formation of the multiplier agents who through the knowledge, action and reflection of the practice, they will interpret the information to transmit it and generate the understanding of the problem.

In the first stage the C/P Team will be trained through a workshop, to formed them as multiplier agents, responsible to apply the Pilot Project in the entities selected and train the teachers of the schools involved; in order to pursuit the actions.

In the second stage the C/P Team qualified, will be the instructors in the workshop directed to the teachers of the schools selected; with the support of their trainers.

The third stage the teachers of the schools involved will train their student through an experimental class.

The methodology employed in the workshops was the participatory, starting from the knowledge and experience of each participant in an action-reflection-action process. Through the practice the knowledge will be recreate, generating new ideas that encourage the creation of different approaches and the unification of new concepts.

This methodology facilitate the information diffusion process, generating its simple understanding, the sensitization of those involved and the appropriation of knowledge for a committed involvement.

The ideas, concepts, conclusions and new knowledge acquired by the participants; came from the reasoning of their own experience, what allowed the transmission of knowledge in a horizontal way, among the workshop participants.

There were several techniques employed in each workshop, based on the active participation of those present, the reflection of the information and the scattering.

- Participative Exposition
- Group Conclusions
- Brainstorming
- Team Work

X.1.5 Summary of activities

Memories of the workshop: "Waste Minimization for a Clean City". The first workshop was directed to the Counterpart. The different training techniques where shown to approach all the topics; allowing the assistants to expose information with the support of their trainers.

In addition, the program of future workshops was detailed (practice with high school students, for teachers and experimental classes in schools).

Table 1-1-1: Summary of the activities made in the framework of the Environmental Educational Pilot Project

| Annex No. | Information | | | |
|-----------|---|--|--|--|
| 1.1 | Introduction. | | | |
| 1.2 | Memories of the workshop: "Waste Minimization for a Clean City" directed to the C/P Team (personnel of ADN, SEE, SEMARN, others). | | | |
| 1.3 | Memories of the workshop for teachers: programmed | | | |
| 1.4 | Memories of experimental classes in schools: programmed | | | |

X.1.6 Conclusions

The actions mentioned in this Pilot Project, were carried out in a period of 1.5 months, were the training actions for the multipliers were planned and executed.

In these actions a significant number of assistants were participating, who showed their interests during the sessions and planning their activities as multipliers.

Their enthusiasm and commitment with the Pilot Project was obviously in the comments made. This interests of the participants was based on there desire to learn and bring new knowledge, concepts or techniques, in order to facilitate the work developed in the institutions where they belongs, as trainers, environmental educators, teachers or the personnel responsible to assist the public.

The assistants participate in the workshop in a committed way with the actions, which have a great training, capacity, experience and energy; to be developed as multipliers of the project and continue its process.

X.2 Memories of the Training Workshop for the C/P Team

X.2 Memories of the Training Workshop for the C/P Team

X.2.1 Introduction

The Environmental Education Pilot Program starts in the frameworks of the Study on Integrated Solid Waste Management Plan in Santo Domingo de Guzman, National District Dominican Republic, carried out by the JICA Study Team and the Dominican Counterpart Team (C/P) integrated by ADN, SEE, SEMARN and SESPAS. It arises like a necessity to strengthen the environmental education in order to improve the solid waste management in the National District, in the formal and non formal environment.

The educational program has as central idea the training that includes formation actions directed to the C/P personnel, educators and to the community. The idea is that these groups trained can be able to train other persons in their influence areas (schools and communities). The program had identified the following objectives:

- *Encourage the waste minimization for a clean and healthy city.*
- Enhancement the citizen awareness related with the solid waste management.

To implement the pilot project three sectors has been selected (San José, Km 8 and Km 8½), but not limited to them. The personnel of the C/P will be in charge to select the schools.

Following the activities programmed, the training will start with the personnel of the C/P selected, because their functions is to guide and train the community. The objectives identified for the workshop are:

- Find an adequate education to encourage the minimization and enhancement the citizen awareness.
- Know about the educational material prepared in other countries and it application in the ND.

Ending the workshop we expect that the participants could be able to train schools and communities, depending on the preparation level and the domain of the topics.

The methodology to be used in this workshop is participatory because we will start from the knowledge or the experience that each one has to the theory and then from the theory to the experience, in an action-reflection-action process. We will recreate our knowledge, putting them together and strengthening those concepts that are necessary.

X.2.2 Methodology

The methodology employed in the workshops was the participatory, starting from the knowledge and experience of each participant in an action-reflection-action process. According that with the teaching-learning process idea arises the own dissemination of the information, enriched by exchanging approaches and new ideas.

The knowledge was recreated with the methodology of the workshop, by the trainers and by the personnel of the C/P; generating, unifying and strengthening those approaches and concepts that are necessary.

X.2.3 Program of the training workshop for the C/P

The workshop named "Waste Minimization for a Clean City" for the C/P Team, was carried out on Wednesday November 23 of 2005, in the Environmental Information Center located in the Mirador Sur Park, ND.

The program was planned thinking in the importance of the topics, in activities that help achieved the training objectives, in techniques that were practical and interesting for the participants, in the flexibility of the time to modify the actions programmed and in feasibility to work with teams that could be exchange continually; generating a continue fluency of exchange of ideas.

Table: Program of the Workshop for the C/P Team "Waste Minimization for a Clean City"

| Time | Activity/topic | Objective | Technique | Facilitator |
|-------------|--|--|---|--|
| 9:00-9:05 | Reception | Delivery of the Program | | Ayesha/Yuko |
| 9:05-9:10 | Welcome | | | Masaharu Kina JICA Study Team (MK) |
| 9:10-9:20 | Presentation of the program | Presentation of the program and objectives of the workshop | Dialogued exhibition | MK |
| 9:20-9:25 | Presentation of the methodology and the schedule | Work Methodology and activities to be carried out during the day | Dialogued exhibition | MK |
| 9:25-9:45 | Participants' presentation | Presentation of the participants and the facilitators | Auto presentation | Antonio A. Rodríguez F. (Tony) |
| 9:45-10:10 | Activity 1 Environmental Education | Identify and define the concept of environmental education | Brainstorm | Tony |
| 10:10-10:25 | COFFEE BREAK | | | |
| 10:25-11:00 | Activity 2 1) Solid Waste 2) Phases for an adequate solid waste management | Identify the concept of solid waste. Identify the sequence of the phases or steps required for an adequate solid waste management. | Brainstorm Work in group and exposition of the proposal | Tony/MK |
| 11:00-11:20 | Activity 3 Waste composition | Distinguish the solid waste composition and how they can be classified | Classification dynamics in group | MK/Tony |
| 11:20-11:40 | Plenary | | | Everyone |
| 11:40-12:00 | Activity 4: Waste Minimization | Identify the concept of the 3R's. How to encourage the reduction, recycle and reuse of the waste? | Dynamic of the 3R's. Presentation of the proposal of each Group. | MK/Tony |
| 12:00-12:30 | Plenary | | | Everyone |
| 12:30-13:15 | ALMUERZO | | | • |
| 13:15-13:45 | Activity 5: Handwork (Presentation) | Use of the reusable materials | Work in Group. o. Elaboration of the objects and uses with the classified materials | MK/Tony |
| 13:45-14:15 | Activity 6: Elaboration of recycle paper. | Practical example. Simple techniques to elaborate paper | Exhibition of the steps and elaboration. | Anyelina Teodoro |
| 14:15-14:35 | Video | Presentation of the Video "Yes I want my environment clean! | Video Projection | MK |
| 14:35-15:05 | Activity 7: Knowing the educational materials | Utility of educational material elaborated in other countries and its application in the ND | Use of them and design of new materials. | MK |
| 15:05-15:15 | Practice of the waste management in Japan | Know some practices of the solid waste management in Japan. | General Information. | MK |
| 15:15-15:45 | Activity 8: Agreements of responsibilities | Commitment for the training workshop of the teachers | Responsibilities of each participant. | Everyone |
| 15:45-16:00 | Evaluation and closure | Diagnostic of appreciation of the workshop | Diagnostic qualitative | MK/Tony |

X.2.4 Activities of the Workshop (Waste Minimization for a Clean City"

The workshop started with the welcome in charge of the JICA Study Team who also showed the program, the objectives of the workshop, the methodology of the work and the activities to carry out in the day.

Then the actions programmed started with the auto presentation, where the participants mentioned their names, institution to which they belongs and their labor position.

Below are the 4 working groups formed for this activity:

The Pupil of Barney
Ana Cristina Castro
Hugo Pérez
Ramona Checo

Carlos Sepúlveda

Life Astry Nuñez Mirtha Nuñez Fernando Rijo Blue Water
Ernesto Fidel
Rutt Martínez
Teodoro Lara
Gabriela de Los Santos

Environmental Heroes
Angelina Aquino
Francis Blanc
Wilfredo Astacio
Luz Genao

Activity 1: Environmental Education

Objective: Identify and define the concept of Environmental Education

In this first activity we proposed that the work group defined the concept of Environmental Education through a brainstorm; for this any member of the group determined a concept exposing it to the other participants. There was a limit of time to expose the analysis and definition to the other groups.

Alter the exposition of each participant, the facilitators highlighted the main points of the definitions and made comments about the different definitions of the Environmental Education.

They emphasized that the definitions given were similar to concepts of environmental education presented in the Declaration of Tbilisi, UNESCO, 1978; the definition presented in the Congress of Moscow, 1978; and the most recent one the Law of the Environmental Bases, Chile.

Activity 2a: Solid Waste

Objective: Identify the concept of solid waste

To start this activity they asked: What jeans solid waste?

Due to the expressions, we proposed them to define in groups, what they understand by solid waste since each participant had a different concept and it was necessary to homogenize the approaches, in order to continue with the other topics.

The concepts below were given by the groups:

The Pupils of Barney

Ana Cristina Hugo Ramona

Concepts of solid waste

- Materials in solid state, that who generates it won't use it again and decides to throw it.
- Degradable and non degradable waste.
- Waste



Blue Water

Ernesto Rutt Teodoro Gabriela

Concepts of solid waste

Products of degradation and decomposition substances, solids and liquids



Life Group

Astry Mirtha Fernando Carlos

Concepts of solid waste

The waste produced by the human beings, and they can create a positive or negative effect to the environment.



Environmental Heroes

Angelina Luz Francis Wilfredo

Concepts of solid waste

Those generated as a result of the human activities after giving the main use to a product and they are not presented in liquid neither in gassy state.



Ending the groups' exposition, these concepts were analyzed and to conclude the facilitators presented a simple definition "Material that does not represent a utility neither an economic value for the owner, reason why the owner becomes a waste generator. Depend on the point of view of the actor involved".

Activity 2b: Phases for an adequate Solid Waste Management

Objective: Identify the sequence of the phases or steps required for an adequate solid waste management

In this activity each group had to organize the flow of the solid waste management, according to the analysis and the reflection that they will carry out in their groups about each term that constitute the flow, ordering it according to its convenience.

Each flow of the solid waste management, was constitute by 11 posters with the following terms: Extraction of the raw material, Product, Reduction, Generation, Reused, Storing, Compost, Return to the nature, Recycle, Collection and Final Disposal.

Each group of work deliberating and agreeing orderly the appropriate sequence of each poster, at the end they exposed visually the flow of the solid waste management elaborated.

The facilitators supplied a general explanation of the concepts employed in the flow and showed a projection of the correct order of the flow of the solid waste management, in order to allow the groups to compare with their own, being the groups named the 4 Fantastic the mort correct according to what was exposed.

Flowchart of the solid waste management elaborated by each group of work:

Solid Waste and the phases for an adequate solid waste management Flow of the Solid Waste

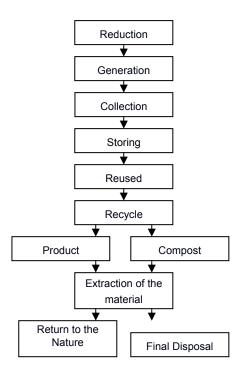
Extraction of the The Pupils of Barney material Ana Cristina Castro Ramona Checo Product Hugo Pérez Reduction Reused Generation Separation Storing Collection Recycle Compost Final Disposal Return to the Nature

Blue Water

Ruth Martinez Ernesto Fidel Gabriela Teodoro



Flow of the Solid Waste



Flow of the Solid Waste

Life

Fernando Rijo Astry Núñez Mirtha Núñez



Extraction of the material

Generation

Product

Collection

Storing

Recycle

Compost

Reduction

Reused

Final Disposal

Return to the Nature

Flow of the Solid Waste

Environmental Heroes

Anyelina Luz José Rosario



Reduction

Product

Extraction of the material

Generation

Reused

Recycle

Storing

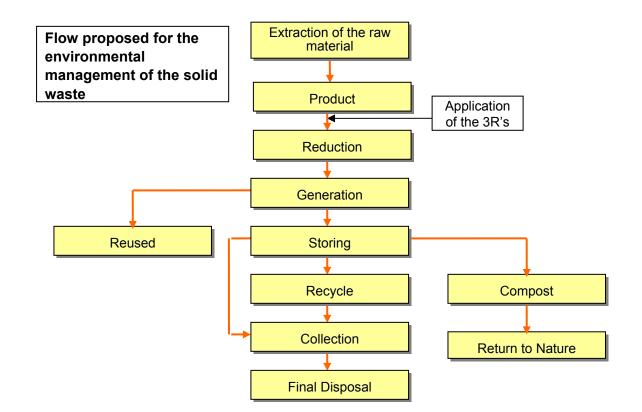
Collection

Final Disposal

Compost

Return to the

Nature



Activity: Classification of the solid waste

Objective: Distinguish the composition of the solid waste and how we can classify it

For this activity we gave each group a box with solid waste. Each group should classify the elements of the box, classifying them in the categories that they wanted.

Classification of the solid waste made by each group:

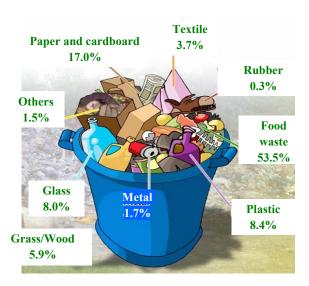
| The Pupils of | Waste Composition | | |
|---------------|--|--|--|
| Barney: | | | |
| Ana Cristina | 5 PET Bottles (plastics); 9 cardboard (cardboard); 3 newspapers | | |
| Hugo | (paper); 1 glossy paper; 1 tetra pack, 2 aluminum paper, 1 | | |
| Ramona | aluminum can (aluminum); 2 organic materials (coffee, tangerine); | | |
| | 16 plastics; 1 rubber (rubber), 1 CD (metal and plastic); 1 textile. | | |

| Blue Water | Biodegradable (fast-organic) | Biodegradable (very slow or of slow decomposition) | No degradable |
|------------|---------------------------------|--|-------------------|
| Ernesto | Cardboard, coffee, | Plastics (bags, bottles | Glasses (bottles) |
| Rutt | newspapers, leafs, | of soda, plastic | |
| Teodoro | coffee grounds, thread | glasses, bottles caps, | |
| Gabriela | of cotton | ribbon or labels, tape), | |
| | | tin cans, rubber | |
| | | (hose). | |

| Life Group | Recyclable | Disposable | Unknown |
|--------------------------|----------------------|--------------|---------|
| Fernando | Paper, glossy paper, | Polyethylene | Rubber |
| Astry | cardboard, plastic, | | |
| Mirtha thread of cotton, | | | |
| Carlos | organics: coffee, | | |
| | tangerine peel, | | |
| | aluminum. | | |

| Environmental Heroes | Waste Composition | |
|----------------------|---------------------------------|--|
| Anyelina | Papers and non glossy cardboard | |
| Luz | Organic wastes | |
| Francis | Several plastics | |
| Wilfredo | Metals, tin cans | |
| | Rubber | |
| | Textile | |

The facilitators showed the composition of the solid waste in the Circumscription 1 of the National District. Also they mentioned that the classification is in function of what we will make with the solid waste.



Activity 4: Waste Minimization

Objective: Identify the concept of the 3R's

This activity was developed through a brainstorm. The 4 groups coincide in the concept of the 3R's.

Reducer: Make lest waste and reduce the quantity of waste that goes to the final disposal

site.

Reuse: Use the articles instead of throwing them.

Recycle: Collect used materials to process them and made new products.

Then the facilitators showed some examples of waste reduction and they present the slides of waste minimization, the form of throw the waste by a common and ecological family, the identification of the plastics materials and its common uses and the most common materials to be recycled.



Activity 5: Handworks

Objective: Advantages of the reusable materials

Organized in their work tables we request each group

Organizados en sus mesas de trabajo se solicitó que cada grupo tomara de nuevo la caja con los residuos sólidos que en la actividad 3 emplearon para clasificarlos.

In this activity they have to use their creativity to do some handwork using the waste that they considered appropriate to give them a new use.

During the time employed for this activity the participants were actives and concentrated in their works, with a cooperation attitude for the elaboration of their handiworks.

Ending the activity each group showed their object, mentioning the elements used and the function or the use of each object. As result we had different objects such as a Christmas tree, pencils stand, decorative articles as landscapes, etc.





Activity 6: Elaboration of the recycle paper

Objective: Learn a simple technique to elaborate paper

In order to show a simple technique to do recycle paper, we showed the steps for its elaboration showing blend and the sheets of paper recycled elaborated as samples. The participants did a small practice. They showed and express their interest for the elaboration of the recycled paper.



Presentation of the Video ¡Yes I want my environment clean!

We showed the video ¡Yes I want my environment clean! Produced in Mexico, which shows two topics: the solid waste and residuals water problems. The topics are presented by two lively characters and three children of the region.



The presentation of the video had a great acceptance by the participants and it was considered appropriated to carry out the environment education with children.

Activity 7: Knowing the educational materials

A copy of the educational guide "The waste has life" produced in Panama in 2004 was distributed to the participants.

This distribution is to consider the utility of the educational material elaborated in other country for its application in the National District or leave the possibility to prepare a new one considering the Dominican reality.



Activity 8: Agreements and Responsibilities

Objective: Commitment for the workshop to train the teachers

At the end of the program, we made a brief summary of the activities carried out in the workshop and the objective of this training.

Being focused in the importance that each participant had for the achievement of the Pilot Project; we asked each participant (according to their possibilities) to organize and implement the workshop for the teachers programmed for January of 2006.



The participants, before the implementation of the workshop for the teachers they agreed to make a workshop for high school students as a practice in the last week of November in a school located in the PPP area.

X.2.5 Evaluation of the workshop by the participants

An evaluation was applied to the participants of the workshop through a form in which were embraced aspects of the appreciation of the workshop in general, used materials, the performance of the facilitators, the participation and logistic of the assistants; in order that the participants evaluate the training received and contribute with some comments to improve the development of the workshop in future experiences.

Following are the comments given by the participants (9 persons) that filled up the form at the end of the workshop:

a. Regarding the workshop

- 1. 100% (9 persons) qualified as <u>Greatly</u> that the topic were *appropriate and with the necessary information to contribute with the achievement of the objectives proposed.*
- 2. 90% (8 persons) considered that was <u>Good</u> the aspect of *clear and comprehensible*, only 10% (1 person) qualified it as <u>Somewhat</u>.
- 3. 100% marked as Greatly /Good the level of teaching to transmit to the participants.
- 4. 100% (9 persons) indicated as Good the used of audiovisuals.
- 5. *The time established for the training* was considered by 5 persons as <u>Good</u>, by 2 persons as <u>Somewhat</u> and 1 person as <u>Low</u>.
- 6. The practical exercises were catalogued by all (100%) as Good.

b. Regarding the material distributed

- 7. In the question *useful to be used in the scholar activities* 90% (8 persons) qualified it as Greatly and one person as Somewhat.
- 8. *The quality and content of the material* was <u>Good</u> for the 100%.
- 9. 90% (8 persons) considered that the *pictures and drawings were* Goods excepting one person that qualified it as Somewhat/Regular.

(The material distributed was a copy (black and white) of the educational guide made in Panama).

c. Regarding the facilitators

- 10. The clearness of the expositions was qualified by the 100% as Good.
- 11. *The methodology used:* 90% marked it as <u>Good</u>, and one person considered it as <u>Regular</u>.
- 12. In the question of the dominion of the topics was qualified as Good by the 100%.

d. Regarding their participation

13. Six persons marked with <u>Yes</u> that *they could transfer this knowledge and the management of the instruments to other teachers* and 3 persons answered <u>Fairly.</u>

e. Regarding the organization of the workshop

- 14. 100% considered that the installations were Good.
- 15. Regarding the *used equipments* everyone (100%) considered it as <u>Good</u>.

f. Comments and suggestions

• The time was a very short synthesis, to work with children it should be shorter.

Table: Results of the evaluation of the workshop for the personnel of the counterpart



Evaluation of the Workshop



"Waste Minimization toward a Clean City"

Please evaluate the aspects detailed in this form using as reference the following scale:

| Greatly/ | Somewhat/ | Low/ |
|----------|----------------|-----------|
| Good | Regular/Fairly | Deficient |

| Reg | parding the workshop you considered it | Greatly/ Good | Somewhat/ Regular | Low/ Deficient |
|-----|---|------------------|----------------------|-------------------|
| 1 | With appropriate topics and with the necessary information to contribute with the achievement of the objectives proposed. | 9 | r togului | |
| 2 | Clear and comprehensible | 8 | 1 | |
| 3 | With a level of teaching to transmit it to the students | 9 | | |
| 4 | The used of audiovisuals was | 9 | | |
| 5 | The time established for the training was | 5 | 2 | 1 |
| 6 | The practical exercise were | 9 | | |
| Reç | parding the material distributed you considered it | Greatly/ Good | Somewhat/ Regular | Low/ Deficient |
| 7 | Useful to be used in scholar activities | 8 | 1 | |
| 8 | The quality and content of the material was | 9 | | |
| 9 | The pictures and drawings were | 8 | 1 | |
| Reg | parding the facilitators | Good | Regular | Deficient |
| 10 | The clearness of the exposition was | 9 | | |
| 11 | The methodology used was | 8 | 1 | |
| 12 | The dominion of the topics was | 9 | | |
| Reg | parding their participation | Yes | Fairly | No |
| 13 | Can you transfer these knowledge and the management of these instruments to other teachers | 6 | 3 | |
| Reg | parding the organization of the workshop you consider it | Good | Regular | Deficient |
| 14 | The installations were | 9 | | |
| 15 | The used equipments were | 9 | | |
| Oth | er comments and suggestions | | | |
| The | time was a very short synthesis, to work with children it should be shorter | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | 7 | Thank Yo |

X.2.6 Final Comments

During the development of the workshop we have the attention and participation of the assistants, showed in each activity developed in each work group, in order to achieve the integration among the participants and the opportunity to obtain different opinions that enrich the work.

It was evident the desire to do these activities doing them in short times and exposing the results of each activity by the different members of the group, allowing all the assistants to participate as moderators in some moment during the workshop; their attitude was of trust and disposition. Also it was visible the enjoyment of the participants when they had to developed their creativity, especially in the handiworks where they worked with the solid waste and showed some artistic qualities.

The workshop developed a participative environment which made easier the transmission of experiences and ideas, because from the different professional environments of the participants the topics were board in a simple way, generating the acquisition of new knowledge and its reinforcement. It is necessary to mention that the activities had a short time in order to follow the program in only one business day.

In conclusion the outlines objectives of the workshop were completed.

X.2.7 List of Participants

Date: November 23, 2005

| | Date: November 23, 2 | | | | | |
|-----|----------------------------|--|---------------------------------|------------------|--|--|
| No. | Name | Institution/ Department | Position | Telephone/E-Mail | | |
| 1 | Astry Nuñez | SEE / General Directorate of Maintenance | Sub-Director | | | |
| 2 | Angela Martínez | SEE / Educational Medias | Technician | | | |
| 3 | Ernesto Fidel López | SEE / Educational Medias | Marionette | | | |
| 4 | Mirtha Nuñez | District 1505 / Environment | Manager | | | |
| 5 | Fernando Rijo | Educ. District 1505 / Community Education | Manager | | | |
| 6 | Ruth Martínez | Regional 15 / Natural Science Area | Regional Technician | | | |
| 7 | Ramona Checo | SEMARN / Environmental Culture | Manager | | | |
| 8 | Gabriela de los Santos | SEMARN / Training for the Non Formal Environment Education | Environmental Teacher | | | |
| 9 | Hugo Pérez | ADN / Environmental Management and Urban Cleansing | Programming and Control Manager | | | |
| 10 | Angelina Aquino | ADN / Environmental Management and Urban Cleansing | Evaluation Manager | | | |
| 11 | Teodoro Lara | ADN / Environmental Information Center | Citizen Participation | | | |
| 12 | Ana Cristina Castro | ADN / Youth Municipal Office | Manager | | | |
| 13 | Juan Francisco Blanc | ADN / Youth Office | Sub- Manager | | | |
| 14 | Wilfredo Astacio | ADN / Quality Management | Instructor | | | |
| 15 | Luz Genao | ADN / Environmental Management and Urban Cleansing | Documentation Manager | | | |
| 16 | Enrique Leonardo García | ADN / Environmental Management and Urban Cleansing | Technician | | | |
| 17 | Carlos Sepúlveda | Dominican ENDA / Urban Program | Social Technician | | | |

Annex Y

Workshop for teachers implemented by the C/P Team

Workshop for the Environmental Education Pilot Project

Waste Minimization for a Clean City



Workshop for teachers implemented by the C/P Team

January 27, 2006

Y. Workshop for the Environmental Education Pilot Project

Y.1 Introduction

- Y.1.1 Background
- Y.1.2 Areas were the Environmental Education Pilot Project was implemented
- Y.1.3 Implementation of the Environmental Education Pilot Project
- Y.1.4 Methodology
- Y.1.5 Summary of Activity
- Y.1.6 Conclusions

Y.2 Summary of Training Workshop for Teachers

- Y.2.1 Introduction
- Y.2.2 Methodology
- Y.2.3 Program of Training Workshop for Teachers
- Y.2.4 Activities of the Workshop "Waste Minimization for a Clean City"
- Y.2.5 Evaluation of the workshop by the participants
- Y.2.6 Final Comments
- Y.2.7 List of participants

Y. Workshops for the Environmental Education Pilot Project

Y.1 Introduction

Y.1.1 Background

The Environmental Education Pilot Program starts in the frameworks of the Study on Integrated Solid Waste Management Plan in Santo Domingo de Guzman, National District Dominican Republic, carried out by the JICA Study Team and the Dominican Counterpart Team (C/P) integrated by ADN, SEE, SEMARN and SESPAS. It arises like a necessity to strengthen the environmental education in order to improve the solid waste management in the National District, in the formal and non formal environment.

The educational program has as central idea the training that includes formation actions directed to the C/P personnel, educators and to the community. The idea is that these groups trained can be able to train other persons in their influence areas (schools and communities). The program had identified the following objectives:

- *Encourage the waste minimization for a clean and healthy city.*
- Enhancement the citizen awareness related with the solid waste management.

A sector on the southwest of District I of the National District has been selected to implement the Pilot Project, but not limited to it.

Continuing with programmed activities, the training will start with the personnel of the C/P selected, because their task is to guide and train the community. The objectives identified for the workshop are:

- To find an adequate education to encourage minimization and enhancement the citizen awareness.
- To know about the educational material prepared in other countries and it application in the ND

At the end of the workshop we expect that the participants could be able to train schoolteachers and communities, depending on the preparation level and the domain of the topics.

The methodology to be used in this workshop is participatory because we will start from the knowledge or the experience that each one has to the theory and then from the theory to the experience, in an action-reflection-action process. We will recreate our knowledge, putting them together and strengthening those concepts that are necessary.

Y.1.2 Areas to implement the Environmental Education Pilot Project

The areas selected to implement the project was the southwest of District 1, between Ave. Nuñez de Cáceres (east), Costa Verde near the intersection of Av. Independencia and 30 de Mayo Highway (southwest), Ave. Cayetano Germosen (north) and 30 de Mayo Highway (south).

Y.1.3 Implementation of the Environmental Education Pilot Project

The Pilot Project started with the cooperation of JICA Study Team and Counterpart Team (ADN, SEE, and SEMARN). Meetings were held to plan the activity program and work schedule to be carry out.

Later on, the JICA Study Team planned and implemented the workshop named "Waste Minimization for a Clean City" to train C/P Team. Then, the C/P Team imparted a training workshop for public school teachers of Pre-Pilot Project area.

The activities were carried out under a close coordination and supervision of programmed actions, in order to achieve the objective in a simple, creative and quality way.

Y.1.4 Methodology

The methodology of the Pilot Project, it was established to form multiplier agents, who for the knowledge, action and reflection of the practice, they will interpret the information to transmit it and will generate the understanding of the problem.

In the first stage, members of the C/P Team were trained through a workshop; once formed as multiplier agents, they put into practice the Pilot Project in selected areas and will be in charge to train teachers, as well as to give the continuation of the activities

In the second stage the C/P Team will train teachers selected schools with assistance and the base trainers' support.

The third stage consisted of training pupils by teachers of selected schools by means of experimental workshops.

The methodology employed in the workshops was the participatory, starting from the knowledge and experience of each participant in an action-reflection-action process. Through practices, the knowledge will be recreate, generating new ideas encouraging creation of different approaches and the unification of new concepts.

This methodology facilitate the information diffusion process, generating its simple understanding, the sensitization of those involved and the appropriation of knowledge for a committed involvement.

The ideas, concepts, conclusions and new knowledge acquired by the participants; they arose from reasoning of their own experience, which allowed the transmission of knowledge in a horizontal way among the workshop participants.

There were several techniques employed in each workshop, based on the active participation of those present, the reflection of information and recreation.

- Participative presentation
- Group conclusions
- Brainstorming
- Teamwork

Y.1.5 Summary of the Activities

Summary of the workshop: "Waste Minimization for a Clean City". This first workshop was directed to primary school teachers. Different training techniques where used to approach all topics; allowing the assistants to expose information with the support of their trainers.

Table 1-1-1: Summary of the activities made in the framework of the Environmental Educational Pilot Project

| Annex No. | Information | | |
|-----------|--|--|--|
| 1.1 | Introduction. | | |
| 1.2 | Summary of workshop: "Waste Minimization for a Clean City" directed to the | | |
| | C/P Team (personnel of ADN, SEE, SEMARN, others). | | |
| 1.3 | Summary of workshop for teachers | | |
| 1.4 | Summary of experimental workshop in schools (to be prepared by the C/P) | | |

Y.1.6 Conclusions

In the workshops, a significant number of attendees showed their interests during the sessions and participated actively, as well as for action plan as multipliers.

Their enthusiasm and commitment with the Pilot Project was evident in the comments they made. This interests of the participants was based on the desire to learn and bring new knowledge, concepts or techniques, in order to facilitate the work developed in the institutions where they belongs, as trainers, environmental educators, teachers or person responsible to assist the public.

The attendees participated in the workshop in a committed way, which have great preparation, capacity, experience and energy; to become as multipliers of the project and continue its process.

Y.2 Summary of Training Workshop for Teachers

Y.2 Summary of Training Workshop for Teachers

Y.2.1 Introduction

The Environmental Education Pilot Program starts in the frameworks of the Study on Integrated Solid Waste Management Plan in Santo Domingo de Guzman, National District Dominican Republic, carried out by the JICA Study Team and the Dominican Counterpart Team (C/P) integrated by ADN, SEE, SEMARN and SESPAS. It arises like a necessity to strengthen the environmental education in order to improve the solid waste management in the National District, in the formal and non formal environment.

The educational program has as central idea the training that includes formation actions directed to the C/P personnel, educators and to the community. The idea is that these groups trained can be able to train other persons in their influence areas (schools and communities). For this the program had identified the following objectives:

- Encourage the waste minimization for a clean and healthy city.
- Enhancement the citizen awareness related with the solid waste management.

A sector on the southwest of District I of the National District has been selected to implement the Pilot Project, but not limited to it.

Continuing with programmed activities, the training will start with the personnel of the C/P selected, because their task is to guide and train the community. The objectives identified for the workshop are:

- To find an adequate education to encourage minimization and enhancement the citizen awareness.
- Know about the educational material prepared in other countries and it application in the ND.

At the end of the workshop we expect that the participants could be able to train schoolteachers and communities, depending on the preparation level and the domain of the topics.

The methodology to be used in this workshop is participatory because we will start from the knowledge or the experience that each one has to the theory and then from the theory to the experience, in an action-reflection-action process. We will recreate our knowledge, putting them together and strengthening those concepts that are necessary.

Y.2.2 Methodology

The methodology employed in the workshops was the participatory, starting from the knowledge and experience of each participant in an action-reflection-action process. Accordingly, with the teaching-learning process idea arises the own dissemination of the information, enriched by exchanging approaches and new ideas.

The knowledge was recreated with the methodology of the workshop, by trainers and C/P personnel, generating, unifying and strengthening those approaches and concepts that are necessary.

Y.2.3 Program of training workshop for Teachers

The workshop named "Waste Minimization for a Clean City" for teachers of the primary schools was carried out on January 27 of 2006, in the Environmental Information Center located in Parque Mirador Sur, National District.

The workshop began at 8:30 AM and finished at 4.00 PM, with duration of 7:30 hours, where 16 teachers of 7 primary schools located in the PPP area participated. The workshop was carried out by the C/P personnel (ADN, SEMARN and SEE represented by personnel of District 1505 and Regional 15).

The program was planned thinking in the importance of topics, in activities that help to achieve the training objectives, in techniques that were practical and interesting for the participants, in the flexibility of the time to modify the actions programmed and in feasibility to work with teams that could be exchange continually; generating a continuos exchange of ideas.

Table: Program of Workshop for Teachers "Waste Minimization for a Clean City"

| Time | Activity/Topic | Objective | Technique | Facilitator |
|-------------|---|--|---|---|
| 8:30~9:00 | Reception | Delivery of the Program | | Esther |
| 9:00-9:010 | Welcome | Openning of the workshop | | Jose Miguel Martinez |
| 9:10-9:25 | Presentation of the program and methodology | Presentation of the program and workshop objectives Work methodology and activities to carry out during the workshop | Dialogued presentation | Teodoro Lara |
| 9:25-9:45 | Participants' introduction | Introduction of participants and facilitators | Auto introduction | Angelina Aquino Antonio A. Rodriguez |
| 9:45-10:15 | Activity 1 What environmental education practice or activity the shool has carried out? | Brief description (Environmental education concept) | Concept presentation | Teodoro Lara Gabriela de los Santos |
| 10:15-10:30 | COFFEE BREAK | | | |
| 10:30-11:10 | Activity 2 1) Solid Waste 2) Steps for an adequate solid waste management | Identify the concept of solid waste. Identify sequence of steps required for an adequate solid waste management. | Teamwork and presentation of proposal | Angelina Aquino |
| 11:10-11:25 | Plenary | | | Everyone (TL) |
| 11:25-11:45 | Activity 3 Waste classification | Classify the solid waste according to objectives | Classification by groups | Gabriela de los Santos Teodoro Lara |
| 11:45-12:15 | Activity 4: Waste minimization | Indentify the concept of 3R's. How to promote reduction, recycle and reuse of waste? | Dynamic of the 3R's. Presentation of proposal of each group | Teodoro Lara |
| 12:15-12:30 | Plenary | | | Everyone (TL) |
| 12:30-13:15 | LUNCH | | | , , , |
| 13:15-14:00 | Activity 5: Handiworks (Presentation) | Use of reusable materials. | Teamwork Making of items using reusable materials | Mirtha Nuñez |
| 14:00-14:40 | Activity 6: Making recycled paper. | Practical example. Simple techniques to produce paper. | Explanation of paper making. | Anyelina Aquino |
| 14:40-15:00 | Video | Video projection "Yes I want my environment clean! | Projection of video | Masaharu Kina |
| 15:00-15:20 | Activity 7: Knowing educational materials | Use of educational material prepared in other countries and its application in the ND | Explanation of the use of these materials | Teodoro Lara |
| 15:20-15:45 | Activity 8: Commitment of responsibilities | Teachers' commitments to realize similar workshops | Responsibilities of each participant. | Mirtha Nuñez Ruth Martínez |
| 15:45-16:00 | Evaluation and closure | Diagnosis of workshop appraisal | Qualitative diagnosis | Enrique García |

Y.2.4 Activities of the Workshop "Waste Minimization for a Clean City"

The workshop started with the welcome message of the Director of Environmental Management and Urban Cleaning Directorate of ADN. Subsequently, the C/P showed the program, the objectives of the workshop, work methodology and the activities to be carried out during the workshop.

The actions programmed started with the auto introduction, where the participants mentioned their names, institution to which they belong and the subject they teach in their shools.

The 4 working groups formed for this activity are:

Group 1: Explosion Girls

Ana Santana Olga Deschamps Angelita Payano Johanna Mora

Group 2: Los Secuoyas

Maniocatex Hernández Ana Deidania Jiménez Alex Alcántara Carolina Cabrera

Group 3: EATA

Eugenia Alcenia Teresa Alexis

Group 4: The Pigeons

Altagracia Batista Epifania Garabito Juana Acevedo Claudia Meriño

Activity 1: Environmental Education

Objective: What environmental education practice or exercise has carried out your school? (concept of environmental education)

For this first activity it was proposed that each participant should define the concept of Environmental Education; for it, a card was delivered to every participant to present their concept. There was a time limit to present the analysis and the definition for every group.

The concepts given by the participants were the followings:

- EE is to keep the entire environment around us clean.
- EE is the knowledge that we must have for keeping a pleasant environment and free of contamination.
- Is the formation that we obtained to take care and preserve our environment or habitat during the life.
- Is the process that allows the citizens to have a healthy community taking the appropriate measures.
- Is to educate, guide the individuals, is to aware the importance to preserve the environment.

- EE is to organize, reduce and clean our environment, to aware the citizen.
- EE is to provide through theory and by practice, the use, care and prevention of renewable and non renewable resources that surround us.
- EE is to educate and guide persons about the environment.
- EE is in charge to keep our environment and the whole nature around us healthy.
- Clean environment.
- To value our natural resources.
- Its purpose is aware the citizens to take care of the environment and teach others to do the same thing.
- EE is the value acquired for the care of the natural environment.
- EE is the use of all the available means to keep the environment clean of harmful agents for the peoples health, beauty and cleansing of the environment.
- Is to educate keeping a favorable environment for the humanity.
- Is to know appropriately the environment to act in favor of it, due to the importance it has in our daily life.
- Is to have the capacity to be able to develop the environment around us.

After the presentation of each participant, the facilitators highlighted the main points of the definitions and made comments about the different definitions of Environmental Education.

It emphasized that the definitions given were similar to concepts of environmental education presented in 1978, Declaration of Tbilisi, UNESCO; in 1987, Congress of Moscow; and recently in the Environmental Base Law, Chile.

Also the participants were asked about what practice or exercise on environmental education they had carried out in their school. These were their answers:

Movearte Proffesional Technical School

Reforestation day

Victor Garrido School

- Poster campaign
- Solid waste collection

San José Basic School

- Every year: cleansing project with there own contribution.

Hogar Rosa Duarte School

- Reforestation on the tree day
- Continuous cleansing activity

Rafaela Santaella Basic School

- Cleaning day
- Reforestation day in school

Billini School

- Programmed cleaning days for classrooms and corridors

Santo Domingo Savio School

- Daily collection of solid waste
- Plant watering

Activity 2.1: Solid Waste

Objective: Identify the solid waste concept

What means solid waste?

Regarding the question, it was proposed them to define by groups, what they understand by solid waste since each participant had a different concept and, it was necessary to homogenize criteria, in order to continue with other topics.

The concepts below were given by each group:

Group 1: Explosion Girl

Ana Santana Olga Deschamps Angelita Payano Johanna Mora

Solid waste concept

 A group of materials with physical, biodegradable and non biodegradable characters, disposed after certain uses.



Group 2: Los Secuoyas

Maniocatex Hernández Ana Deidania Jiménez Alex Alcántara Carolina Cabrera

Solid waste concept

Non degradable disposable materials that although if they affect the environment as contaminant product, they can be reused through recycling.



Group 3: EATA

Eugenia Alcenia Teresa Alexis

Solid waste concept

Remaining materials of something or from an object, which can be degradable or not according to its origin.



Group 4: The Pigeons

Altagracia Batista Epifania Garabito Juana Acevedo Claudia Meriño

Solid waste concept

Solid materials of different types that have already been used.



After the presentation of the groups, the concepts were analyzed and the Activity, the facilitators presented a simple definition "Material that does not represent a utility or an economic value for the owner, thus the owner becomes a waste generator".

Activity 2.2: Steps for an adequate Solid Waste Management

Objective: Identify sequences of steps required for an adequate solid waste management

The activity 2.2 was presented, where each group had to organize SWM's flow, according to the analysis of the group and the reflection of each term that constitutes the flow, arranging it according to its convenience.

SWM's flow was constituted by 12 labels with the following terms: *Extraction of raw material, Product, Application of 3R's, Reduction, Generation, Reuse, Storing, Compost, Return to nature, Recycle, Collection and Final Disposal.*

Every group worked consulting between its members and agreeing the appropriate sequence of etiquettes. Finally, they presented visually the SWM flow prepared.

The facilitators provided a general explanation of the concepts used in the flow and showed a projection of the appropriate SWM flow, allowing the groups to compare with their own flow.

They show the flow of the ready(clever) SWM for every group below:

Flowcharts of the solid waste management prepared by each group are shown below:

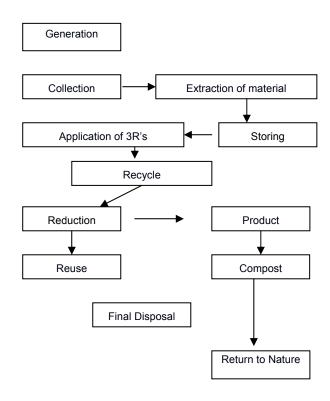
Solid Waste and steps for an adequate solid waste management

Flow of the Solid Waste

Explosion Girl

Ana Santana Olga Deschamps Angelita Payano Johanna Mora



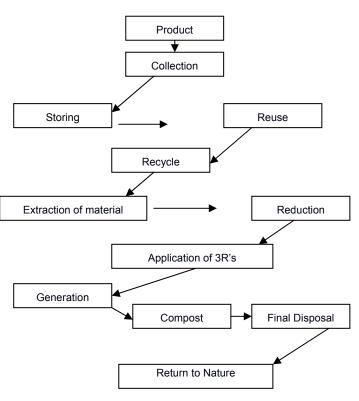


Flow of the Solid Waste

Los Secuoyas

Maniocatex Hernández Ana Deidania Jiménez Alex Alcántara Carolina Cabrera





EATA

Eugenia Alcenia

Teresa

Alexis



Flow of the Solid Waste

Generation

Product

Extraction of material

Storing

Collection

Application of 3R's

Reduction

Recycle

Reuse

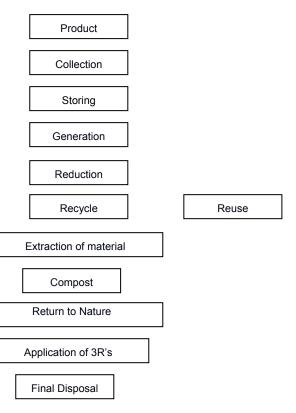
Compost

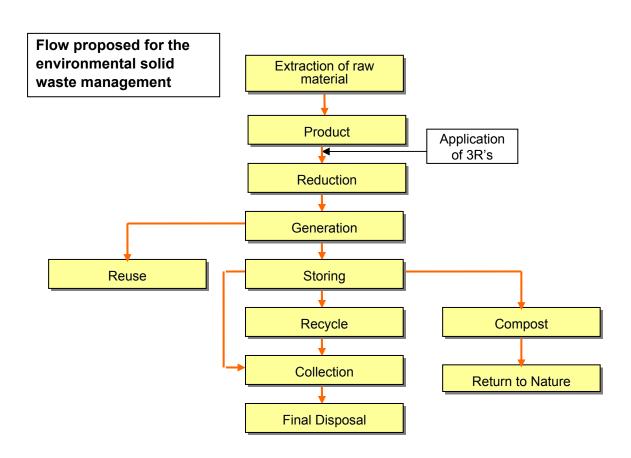
Return to Nature

Final Disposal

Flow of the Solid Waste

The Pigeons Altagracia Batista Epifania Garabito Juana Acevedo Claudia Meriño





Activity 3: Solid Waste Classification

Objective: Classify the solid waste according to objectives

For this activity it was delivered to each group a box containing solid waste. Each group had to classify the elements of the box, classifying them into categories that they were wishing.

The classification of waste made by each group is shown below:

| Explosion Girls: | Reusable materials | Materials for | Non reusable |
|--|---|-----------------------------|-------------------------------------|
| | | compost | |
| Ana Santana Olga Deschamps Angelita Payano Johanna Mora | Glasses, cardboards, bottles, boxes, bags, spoons, etc. | Dry leaf, orange peel, etc. | Plastic bags, cardboard waste, etc. |

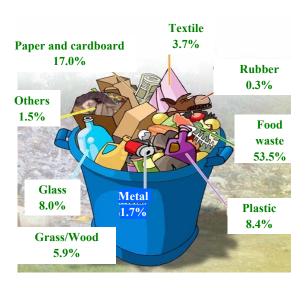
| Los Secuoyas: | Composition of the waste/objectives |
|---|---|
| Maniocatex Hernández Ana Deidania Jiménez Alex Alcántara Carolina Cabrera | Plastic: for recycling Paper: for cleaning Cardboard: to store things; as a decorative basket. Metal: for collection Remove it to avoid accidents, for the people who |
| | buy bottles. 6. Organic: as compost |

| EATA: | Composition of the waste/objectives |
|-----------------------------|--|
| Eugenia | Leaf and wood (compost) |
| Alcenia Teresa Alexis | Newspaper and educational magazines (supporting material). |
| Alexis | Carboard boxes (didactic material) geometric figures. |
| | Plastic objects (trays) for plants or decoration. |
| | Plastic bottles to fill it with water. |
| | Glass bottles for decoration and make chandeliers. |
| | 7. Wire to hang cloth. |
| | 8. Duster to clean the house. |

| The Pigeons | Reusable | Biodegradables | Recyclables |
|--|---|-----------------------|--|
| Altagracia Batista Epifania Garabito Juana Acevedo Claudia Meriño | Bottles: plastic, glass, plastic plates, plastic bags. Cans Coins: for collection | Wood, wooden branches | Magazines Newspaper Cardboard boxes Containers for eggs |

Also there was mentioned that after the decision of what to do with waste, we can classify according to the proposed objectives

The figure at the right side shows SW's composition in District 1 of the National District.



Activity 4: Waste Minimization

Objective: Identify the concept of 3R's

This activity was developed through a brainstorm. The 4 groups coincide in the concept of the 3R's.

Reduce: To generate less waste and reduce the quantity of waste that goes to the final

disposal site.

Reuse: Use articles instead of throwing them.

Recycle: Collect used materials to process them and made new products.

Later the facilitators showed some examples of waste reduction and presented slides on the waste minimization, the discharge manners of a common and ecological families, the identification of plastic materials and its common uses and the most common materials to be recycled.



Activity 5: Handiworks

Objective: Use of reusable materials

For this activity, it was requested to each group to take again the box with solid waste that they used in Activity 3.

In this activity they have to use their creativity to do some handiwork using the waste that they considered appropriate to give them a new use.

During the time employed for this activity the participants were very actives and concentrated in their works, with a cooperation attitude for the elaboration of their handiworks.

At the end of the activity, each group showed their work, explaining the elements used and the function or use of each item. As a result, several works and items were produced such as decorative items, pencil stand, picture frames, among others.



Grupo1: Explosion Girls



Group 3: EATA



Grupo 2: Los Secuoyas



Group 4: The Pigeons

Activity 6: Making recycled paper

Objetivo: Simple technique to make paper

A simple technique to make recycled paper was explained by the C/P, showing all the steps on how the recycled paper is made. The participants did a small practice. They proved to be very active and expressed their interest for the preparation of recycled paper.



Video projection: I want my environment clean!

A video titled ¡Yes I want my environment clean! produced in Mexico was projected, showing two topics: solid waste and wastewater problems. The topics are presented by two animated characters and three children of the region.



During the projection of the video, several technical problems happened such electrical short cut. However, the video had a great acceptance of the participants and it was considered appropriated to carry out the environment education for children.

A copy of the educational booklet "Garbage has life" produced in Panama in 2004 was distributed to the participants.

This distribution of this booklet is to consider the use of educational material prepared in another country for its use in the National District or to leave the possibility of preparing new one considering the Dominican reality.



Activity 8: Commitments and Responsibilities

Objective: Teacher commitments for future activities regarding the solid waste management

At the end of the workshop, a brief summary of the activities carried out in the workshop and the objective of this training was summarized.

Experiencing this workshop, the teachers (according to their possibilities) compromised themselves to organize and implement experimental workshops in their respective school



The teachers committed to carry out experimental workshops according to the following calendar:

| No. | Date | School | Activity | Teacher in charge |
|-----|---------|--------------------------|--------------|----------------------------------|
| 1 | 10/2/06 | San Jose | Experimental | 1) Epifania Garabito |
| | | | workshop | 2) Angelita Payano |
| | | | | 3) Alcenia Pérez |
| | | | | 4) Ana Deidamia Jiménez R. |
| 2 | 10/2/06 | Hogar Rosa Duarte | Experimental | 1) Ana Felicia Santana |
| | | | workshop | 2) Carolina Cabrera |
| 3 | 15/2/06 | Hogar Sto Domingo | Experimental | 2) Alexis Montero |
| | | Savio | workshop | |
| 4 | 172/06 | Francisco Javier Billini | Experimental | 1) Eugenia Lora Molina |
| | | | workshop | 2) Claudia Meriño |
| 5 | 21/2/06 | Movearte Technical | Experimental | 1) Johanna Mora Almonte |
| | | School | workshop | 2) Teresa Amarante |
| | | | | 2) Maniocatex Hernández |
| 6 | 24/2/06 | Victor Garrido | Experimental | 1) Olga Deschamps (1) |
| | | | workshop | 3) Francisco Alexander Alcántara |
| 7 | 28/2/06 | Rafaela Santaella | Experimental | 1) Juana Acevedo |
| | | | workshop | 2) Altagracia Inés Batista |

Y.2.5 Evaluation of the workshop by the participants

An evaluation was applied to the participants of the workshop by a questionnaire which includes aspects of appraisal of the workshop in general, materials used, the performance of the facilitators, participation of the attendees and logistic used; in order that the participants evaluate the training received and contribute with some opportune comments to improve the development of the workshop for future experiences.

The results of the evaluations and comments given by 14 of 16 participant teacher are shown below:

a. Regarding the workshop

- 1. 100% (14 persons) qualified as <u>Very good</u> that the topic were appropriate and with the necessary information to contribute with the achievement of the objectives proposed.
- 2. 100% (14 persons) considered that was <u>Good</u> the aspect of *clear and comprehensible*.
- 3. 93% (13 persons) considered that was <u>Good</u> the aspect of *teaching level to transmit* the students, only 7% (1 person) qualified it as Somewhat.
- 4. 50% (7 persons) indicated as Good the used of audiovisuals.
- 5. *The time established for the training* was considered by 11 persons as <u>Good</u>, by 2 persons as <u>Somewhat</u> and 1 person as <u>Low</u>.
- 6. *The practical exercises* were catalogued by 13 persons (93%) as <u>Good</u> and one person qualified it as <u>Regular</u>.

b. Regarding the material distributed

- 7. In the question *useful for scholar activities* 93% (13 persons) qualified it as <u>Very good</u> and one person as <u>Somewhat</u>.
- 8. *The quality and content of the material* was <u>Good</u> for the 93%. One person consider it as <u>Regular</u>.
- 9. 86% (12 persons) considered that the *pictures and drawings were* Good excepting two person that qualified it as Somewhat/Regular.

c. Regarding the facilitators

- 10. The clearness of explanations was qualified by the 100% as Good.
- 11. The methodology used: 100% marked it as Good.
- 12. As for the knowledge of the topics it was qualified as Good by 100%.

d. Regarding their participation

13. Twelve persons marked with <u>Yes</u> that *they could transfer this knowledge and can manage these tools to other teachers* and 2 persons answered <u>Fairly.</u>

e. Regarding the organization of the workshop

- 14. 100% considered that the installations were Good.
- 15. As for the *equipment used* the majority (86%) considered as <u>Good</u>. Two persons considered as <u>Regular</u>.

f. Comments and suggestions

- This workshop can be implemented in other institutions.
- Should be imparted to all school teachers and also to the parents.

• The workshop was excellent, so we expect this can be reproduced in other schools.

Table 1-3-2: Results of the evaluation of the workshop for teachers



Evaluation of the Workshop



"Waste Minimization toward a Clean City"

Please evaluate the aspects detailed in this questionnaire using as reference the following scale:

| Very good/ | Somewhat/ | Low/ |
|------------|-----------------|------------|
| very good/ | Comownau | LOVVI |
| Good | l Regular/Fair | Deficient |
| 0000 | r togalairi ali | Bollolofit |

| Reg | garding the workshop | Very good/ Good | Somewhat/ Regular | Low/ Deficient |
|-------|---|--------------------|----------------------|-------------------|
| 1 | With appropriate topics and with necessary information to contribute with the achievement of the objectives proposed. | 14 | Trogular | Bonordia |
| 2 | Clear and comprehensible | 14 | | |
| 3 | With a teaching level to transmit the students | 13 | 1 | |
| 4 | The audiovisual used was | 8 | 6 | |
| 5 | The time established for the training was | 11 | 2 | 1 |
| 6 | The practical exercises were | 13 | 1 | |
| Reç | garding the material distributed | Greatly/ Good | Somewhat/ Regular | Low/ Deficient |
| 7 | Useful for scholar activities | 13 | 1 | |
| 8 | The quality and content of the material was | 13 | 1 | |
| 9 | The pictures and drawings were | 12 | 2 | |
| Reç | garding the facilitators | Good | Regular | Deficient |
| 10 | The clearness of explanation was | 14 | | |
| 11 | The methodology used was | 14 | | |
| 12 | The knowledge of the topics was | 14 | | |
| Reg | garding their participation | Yes | Fairly | No |
| 13 | Can you transfer these knowledge and can manage these tools to other teachers | 12 | 2 | |
| Reg | garding the organization of the workshop | Good | Regular | Deficient |
| 14 | The installations were | 14 | | |
| 15 | The equipment used was | 12 | 2 | |
| Oth | ner comments and suggestions | | | |
| 1. TI | his workshop can be implemented in other institutions. | | | |
| 2. TI | he workshop should be imparted to all teachers of the schools and also to parents. | | | |
| 2Th | e workshop was excellent, so we expect this can be reproduced in other schools. | - | - | - |

Thank you

Y.2.6 Final Comments

During the development of the workshop we have the attention and participation of the attendees, showed in all activities developed in every work group, in order to achieve the integration among the participants and the opportunity to obtain different opinions that enrich the work.

It was evident the desire to do these activities doing them in short times and exposing the results of each activity by the different members of the group, allowing all the attendees to participate as moderators in some moment during the workshop; their attitude was of trust and disposition. Also it was visible the enjoyment of the participants when they had to develope their creativity, especially in the handiworks where they worked with the solid waste and showed some artistic qualities.

The workshop was developed in a participative environment which made easier the transmission of experiences and ideas, because from the different professional environments of the participants the topics were approached in a simple way, generating the acquisition of new knowledge and its reinforcement. It is necessary to mention that the activities had a short time to develop in order to follow the program in only one working day.

In conclusion the outlines objectives of the workshop were fulfilled.

Y.2.7 List of Participants

| No. | Name | Institution | Position | Telephone/E-Mail |
|-------|-------------------------------|---|------------------------|------------------|
| Teac | hers | | | |
| 1 | Eugenia Lora Molina | Billini School | Teacher | |
| 2 | Claudia Meriño | Billini School | Teacher | |
| 3 | Ana Deidamia Jiménez Rosso | San José School | Principle | |
| 4 | Epifania Garabito | San José School | Teacher | |
| 5 | Alcenia del C. Pérez | San José School | Teacher | |
| 6 | Angelita Payano | San José School | Teacher | |
| 7 | Ana Felicia Santana | Hogar Rosa Duarte School | Teacher | |
| 8 | Carolina Cabrera | Hogar Rosa Duarte School | Teacher | |
| 9 | Olga Deschamps | Lic. Víctor Garrido School | Teacher | |
| 10 | Alex Alcántara | Lic. Víctor Garrido School | Teacher | |
| 11 | Teresa Amarante | Movearte Technical School | Teacher | |
| 12 | Johanna Mora Almonte | Movearte Technical School | Teacher | |
| 13 | Maniocatex Hernández | Movearte Technical School | Teacher | |
| 14 | Alexis Montero Paredes | Santo Domingo Savio School | Teacher | |
| 15 | Altagracia Inés Batista | Rafaela Santaella School | Teacher | |
| 16 | Juana Acevedo | Rafaela Santaella School | Teacher | |
| Facil | litators | | | |
| 1 | Teodoro Lara | ADN / Environmental | Citizen | |
| | | Information Center | Participation | |
| 2 | Angelina Aquino | ADN / Environmental | Enviornmental | |
| | | Management and Urban | Evaluation | |
| | E. C. I | Cleansing Directorate | Manager | |
| 3 | Enrique Leonardo | ADN / Environmental | Technician | |
| | García | Management and Urban Cleansing Directorate | | |
| 4 | Gabriela de los | SEMARN / Training for the | Environmental | |
| 4 | Santos | non formal Environmental | Trainer | |
| | Santos | Education | Trainei | |
| 5 | Ruth Martínez | Regional 15 / Natural Science Area | Regional Technician | |
| 6 | Mirtha Nuñez | District 1505 / Environmental Area | Manager | |
| 7 | Fernando Rijo | Educ. District 1505 / Community Participation | Manager | |
| 8 | Antonio A. Rodríguez | Juan Montalvo Social Study Center | | |

Workshop Program

"Waste Minimization for a Clean City"

Carried out in public schools of Pre Pilot Project Area

Program of Workshop for Students "Waste Minimization for a Clean City"

San José School

7/2/2006

| Time | Activity | Objective | Technic | Facilitator |
|-------|---|--|--|-------------------|
| | | • | | |
| 8:45 | Activity organization | Delivery of the program to the participants | | |
| 00:6 | Presentation of the program and methodology | Methodology of the Works and the activities to carry out during the day | Dialogued presentation | Epifania Garabito |
| 9:10 | Activity 1 Create in a flipchart how is your environment and how would you like it. | | Team work | Alcenia Pérez |
| 9:30 | Plenary | Presentation of Activity 1 | Presentation of what was carried out | Alcenia Pérez |
| 9:45 | Recess | | | |
| 10:00 | Activity 2 3 members of each group will go to the yard, paste solid waste | Compare the waste of different uses | Group dynamic | Angelita Payano |
| 10:15 | Activity 3 Waste classification | Classify the solid waste according to the objectives. Use of the reusable materials | Classification dynamics in group | Angelita Payano |
| 11:00 | Actividad 4 Manualidades Exposición de los trabajos | Use of the reusable materials. | Team work. Preparation of objects and uses | Angelita Payano |
| 11:30 | Activity 5 Elaboration of the recycle paper | Practical example. Simple techniques to elaborate paper. | Explanation of steps to making recycled paper | Epifania Garabito |
| 11:45 | Evaluation | | | Epifania Garabito |
| 11:50 | Commitment of responsibilities | Personal commitment to cooperate with our environment | Responsibilities of each participant with its school and community | Ana D. Jiménez |
| 12:00 | Final words | | | Ana D. Jiménez |

Participant students: 4, 5, 6, 7 and 8th grades.

Program of Workshop "Waste Minimization for a Clean Community"

Hogar Rosa Duarte School

General purpose: Promote cognitive activities that allow the students acquire the neccesary tools to minimize the waste appropiately and keep clean our community.

| Contents | ı | Environment | Attitudes | - Causes and effects of contamination |
|-------------|---|--------------------------------|------------|---------------------------------------|
| | | Solid Waste | | |
| Conceptuals | | Knowledge techniques and waste | Procedures | - Making recycled paper |
| | | classification | | - Handiworks |

| Time | Contents | Specific purposes | Strategies | Activities | Resources | Facilitator |
|-------|---|---|--|--|--|--|
| 00:6 | Welcome Presentation | Formal and informal greetings Introduction of workshop members | Individual In groups | Individual presentation and expressing the expectations I expect from the workshop | Human | Sister Victoria Reyes Carmen Candelario |
| 9:20 | Environment | Know the importance of a healthy environment | Recovery of previous experiences | Dialogues of knowledge | Paper, crayons, tape, etc. | Teacher Ana Felicia Santana |
| 9:40 | Solid waste, causes and effects of the contamination | Analyze situations, causes and effects of the contamination | Presentation of the situations | Interpratation and analysis of the cases | Sheets, paper, crayons, pencils, etc. | Teacher Carolina Cabrera |
| 10:15 | Recess | | | | | |
| 10:30 | Knowledge techniques and classification of solid waste (application of the 3 R's) | Identify the types of solid waste | Oral and written presentation about waste and the 3R's | Classify the waste following the techniques exposed | Solid waste, paper box, etc. | Ana Felicia |
| 11:00 | 11:00 Making recycled paper | Paper making through recycling techniques | Presentation of steps to make paper | Apply the steps | Milk box, water, crepe paper in red and blue, mixer, sieve, etc. | crepe Carolina blue, |
| 11:20 | Handiworks | Apply techniques learned to reduce solid waste | Through the groups the students will build in a creative way, different items of their interest. | Build items in a creative way | Solid waste, glue, clay, scissors, etc. | Ana Felicia |
| 11:40 | Evaluation | | The A/U | What I learn? What use I'am going to give it? | | Carolina |
| | Commintments | Commit the students to continue carrying out activities that allow disposed adequately and minimize the waste | By grade | Squash the box Carry out cleaning campaign in school and in the environment | - Bags - Waste container - Gloves, etc. | Ana Felicia |

Participant students: 4, 5, 6, 7 and 8th grades.

Program of Workshop "Waste Minimization for a Clean Community"

Domingo Savio School

General purpose: Aware students in order to acquire knowledge to minimize waste which pollute the environment.

| | | CONTENTS | |
|---|---|--|---|
| _ | Conceptuals: | Procedures: | Attitudes: |
| | Environment | Elaboration of recycled paper | Love for cleanliness |
| | Solid waste | Reuse and reduction of solid waste | Respect the environment |
| | Knowledge techniques and recourses classification | | |

| Time | Contents | Specific purposes | Strategies | Activities | Resources | Facilitator |
|-------|---------------------------|---|--|--------------------------------------|--|---------------------------|
| 9:00 | Welcome | Introduction of workshop | Individual or by group | Individual and group | Human | P. Wilson Rosario |
| | Piesenialion | illellibels | | presentation | | |
| 9:20 | Environment | Know the importance of a | Recovery of previous | Dialogue of knowledge | Paper, crayons, tape, | Mr. Alexis Montero |
| | | nealtny environment | experiences | | etc. | |
| 9:32 | Solid waste, causes and | Solid waste, causes and Analyze situations, causes | Presentation of the | Interpretation and | Fine cardboard, | Student José Antonio |
| | effects of the | and effects of the | situations | analysis of cases | pencils, crayons, | Núnez |
| | contamination | contamination | | | paper, etc. | |
| 9:22 | Knowledge techniques | Identify types of solid waste | Oral and written | Classify waste following | Solid waste, boxes, | Student Isbelia Rosa |
| | and classification of the | | presentation about | the techniques exposed | paper, etc. | Femández |
| | solid waste (application | | waste and the 3R's | | | |
| | of the 3 R's) | | | | | |
| 10:30 | Recess | | | | | |
| 11:00 | Making recycled paper | Paper making through | Presentation of the | Apply the steps | Milk box, water, mixer, | Mr. Alexis Montero |
| | | recycling techniques | steps to follow | | coloring, etc. | |
| 11:20 | Handiwork | Apply techniques learned to | To make items in a | Creation of items | Solid waste, clay, | Student Amaury |
| | | reduce waste | creative way | | scissors, etc. | Bocio |
| 11:40 | Evaluation | | Learning and application What I learned? | What I learned? | | Teacher Águeda |
| | | | | What use I'am going to give it? | | Ángeles |
| | Commitments | Commit the students to continue carrying out activities that allow disposed | By groups and by those invited | Reduce solid waste to minimize them. | Bags, waste basket, gloves, sacks, etc. | Teacher Felicita Pérez |
| | | adequately and minimize the waste | | | | |

Program of Workshop "Waste Minimization for a Clean City"

Francisco Xavier Billini School

| Time | Activity | Objective | Tecnique | Facilitator |
|-------|---|--|--|--------------------------------|
| 00:6 | Organization of the activities Presentation of the program and groups | Create student awareness on waste management | | Claudia Meriño Eugenia Lora |
| 9:10 | Activity 1 Represent in a flipchart how does your environment looks like and how would you like it? | Represent how is your school and your barrio | | Claudia Meriño Eugenia Lora |
| 9:30 | Plenary | | Presentation of what was done | Claudia Meriño Eugenia Lora |
| 9:45 | Recess | Recess | | Claudia Meriño Eugenia Lora |
| 10:00 | Activity 2 3 members of each group will go to the yard, collect solid waste | Compare the waste of different uses | Group dynamic | Claudia Meriño Eugenia Lora |
| 10:15 | Activity 3 Waste classification | Classify solid waste according to objectives. Use of reusable materials | Classification dynamics in group | Claudia Meriño Eugenia Lora |
| 10:40 | Activity 4 Handiworks Presentation of the works | Presentation of handiworks with reusable materials. | Work in group. Making items and uses | Claudia Meriño Eugenia Lora |
| 10:50 | Activity 5 Making recycled paper | Making of recycled paper with simple techniques. | Presentation of steps for making recycled paper | Claudia Meriño Eugenia Lora |
| 11:30 | Theatre representation (drama) by students Evaluation of the workshop | students | | Claudia Meriño Eugenia Lora |
| | Commitments of responsibilities | Personnal commitments with our environment | Responsibilities of each participant with its school and community | Ramona E. Vasquez |

Participant students: 4, 5, 6, 7 and 8" grades.

Program of Workshop "Waste Minimization for a city without contamination"

Lic. Víctor Garrido School

General Objective

To produce important activities for students to acquire the neccesary knowledge putting into practice the acquired knowledge in order to reduce waste in an appropriately manner and keep the city clean.

| Time | Contents | Specific Objectives | Strategies | Activities | Facilitator |
|----------------|---|--|--|---|--------------------------------|
| 8:45 | Welcome Presentation | Introduction of participants interactively | Group dynamic | Carry out name dynamics | Director Lic. María García |
| 9:00 | Expectations | To know the expectation of students | Group (represented by a leader) | Explanation by group in a written way what they expect to learn in the workshop. | Teacher Olga Deschamps |
| 9:15 | Our environment and contamination | To value the importance of an environment free of contamination | Presentation of different environment situation pictures | Oral analysis of each environmental contamination case. | Teacher Alexander Alcántara |
| 9:40 | Waste and its classification. (Practice of the 3 Rs') | Recognize that waste is resource. Apply alternatives for the appropriate management of waste | Classification dynamic by group | Classification of waste according the techniques explained | Teacher Anyeli Pérez |
| 10:15 | Recess | | | | |
| 10:30 | Handiworks | Present through the handiworks the techniques learned of waste minimization management | Group exhibition Applause dynamic. | Presentation of different items made by students using reusable waste | Teacher Olga Deschamps |
| 11:00 | 11:00 How to make recycled paper? | | the Instructions | Steps of making recycled paper. | Teacher Alexander Alcántara |
| 11:20 | Commitments | Commit the students to continue multiplying their knowledge and continue watching the environment. | Reading (environmental oath) | Students oath | Teacher Anyeli Pérez |
| 11:30 | Evaluation | Evaluation of the workshop | Questions | What do you think about the workshop? Teacher Olga Deschamps Students / observers | Teacher Olga Deschamps |
| 11:40 12:00 | Closing remarks | | | | Student Person in charge |

Program of Workshop "Waste Minimization for a Clean City" Movearte Proffessional Technical School

General Objective: To aware students on the level of environmental degradation that we affect with every waste poorly managed, and to promote the waste minimization to prevent the negative effects of the pollution.

| Time | Contents/Activities | Objective | Techniques | Facilitator |
|-------------|--|---|--|---------------------------------|
| 8:30-9:00 | Reception | Delivery of name tags and program | | |
| 9:00-9:15 | Welcome | Formal opening of the workshop and introduction of the participants | Introduction | Teacher Teresa Amarante |
| 9:15-9:30 | Introduction and explanation | Explanation of the program, workshop objectives, and the participants and facilitators | Dialogue | Teacher Teresa Amarante |
| 9:30-10:00 | 1st. Activity | 1. Identify the concept of waste | Team work and presentation in a | Teacher Johanna Mora |
| | What they understand regarding waste and its impact on the environment | Identify the effects of environmental contamination | flipchart, the proposal of the group | Ä. |
| 10:00-10:15 | 2nd. Activity Presentation of socio dramas | Create participant awareness concerning the negative impact of contamination and the importance of the appropriate waste management. | Dramatization of daily situation. | Teacher Teresa Amarante |
| 10:15-10:30 | Recess | | | |
| 10:30-10-45 | Waste minimization | Identify the 3Rs' concept. Recognize the waste according to its classification. | 1. Presentationby the facilitator | Teacher Johanna Mora A. |
| 10:45-11:00 | 3rd. Activity Waste classification | Classify waste according to its objective. | Group dynamic | Teacher Maniocatex Hernández |
| 11:00-11:15 | 4th. Activity Handiwork presentation | Present techniques of use of reusable waste | Presentation by the coordinator of each group | Teacher Maniocatex Hernández |
| 11:15-11:30 | 5th. Activity | Show the techniques to make paper through | Practical example and presentation of | Student: Claudio Yorky |
| | Making recycled paper and presentation | the recycle process. | steps of paper making. | Paulino |
| 11:30-11:40 | Commitments | Motivate the participants to assume a moral commitment with themselves and with the society, to look alter the preservation of a clean and healthy environment, and at the same time diffuse the acquired knowledge | Presentation by groups of the commitments. In charge of the coordinator. | Teacher Teresa Amarante |
| 11:40-11:50 | Evaluation and closing remarks | Diagnosis of general development of workshop | Presentation by the participants, invited persons and observers. | Teacher Johanna Mora A. |

Participant students: 3, 5, 6, 7 and 8th grades. (5 groups of 6 students = 30 students)

Program of Workshop "Waste Minimization for a Clean City"

Rafaela Santaella Basic School

General Objective

To implement activities related with the appropriate management of waste that will allow the students, promote solid waste minimization (reduce · reuse · recycle).

| Time | Contents | Specific objectives | Strategies | Activities | Facilitator |
|----------------|---|--|---|--|--|
| 8:45 | Welcome Introduction | Introduction of names of facilitators and students | - Group dynamic - Introduction by group to explain what they expect from the workshop | Name dynamic | Director Isidra Pérez Molina |
| 00:6 | Expectations | Investigate the student expectations | Group directed by a leader | Presentation by group expressing what they expect from the workshop. | Teacher Ramón Montero |
| 9:15 | Our environment and the contamination | Recognize the value of the importance of an environment free of contamination | Pictures of different environments | Analysis of each picture representing a different environment. | Teacher Altagracia Inés Batista |
| 9:40 | Waste classification. Practice of the 3Rs' | Apply alternatives for an apropriate management of the solid waste in order to minimize waste | Classification dynamic by groups | Waste classification according to the techniques applied. | Teacher Juana Acevedo |
| 10:15 | Recess | | | | |
| 10:30 | 10:30 Handiworks | Handiworks and acquired techniques on solid waste management | Group presentation | Presentation of the student works. | Teacher Altagracia Inés Batista |
| 11:00 | 11:00 Making recycled paper | Paper making through recycling techniques | Instructions to make paper | Steps to make recycled paper | Teacher Ramón Montero |
| 11:20 | Evaluation | | Participation of the workshop members | What do you think about the workshop: students and observers | Teacher Juana Acevedo |
| 11:30 | 11:30 Commitments | Commit the students to continue multiplying their knowledge acquired in this workshop and carry out activities for waste minimization. | Reading of the environment Decalogue | Environmental Decalogue | Teacher Ramón Montero |
| 11:50 12:00 | Closing remarks | | | | Directora Isidra Pérez Molina Students |

Annex Z

Municipal Regulation on Non-hazardous Solid Waste Management

INDEX

WHEREAS

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(Second version as of June 14th, 2006)

NATIONAL DISTRICT MUNICIPALITY Santo Domingo de Guzmán, Dominican Republic

RESOLUTION No.

dated , 2005

Which establishes and regulates the Non-Hazardous Municipal Solid Waste Management Service at the territory of the National District Municipality

NATIONAL DISTRICT MUNICIPALITY

With full use of its powers

W H E R E A S Notified:

Considering:

AGREES:

TITLE I

INTEGRAL MANAGEMENT CONDITIONS

CHAPTER I

OBJECT AND SCOPE

Article

Object. The present Regulation has the purpose to rule the relations among the National District Municipality (ADN), their citizens, customers and hired or authorized private suppliers in the public integral solid waste management service and cleaning at the National District.

Article

This Regulation applies to all types of non-hazardous municipal solid waste, of general and mandatory observance for both the public and private sector and every natural and artificial person living permanently or in transit in the National District.

Article

The present Regulation is within the framework of articles 106, 107 and 108 from the General Environmental and Natural Resources Law, which deputes the operation of the collection, cleaning, treatment and haulage systems and final disposal of non-hazardous municipal wastes to the municipalities and sets forth mandates to regulate, manage and prevent pollution arising from solid wastes.

Provisions of the General Health Law No. 42-01; Police Law No. 4984; Law on Urbanizations and Public Beautification No. 675; Law No. 241 of year 1967; Law No. 83-89; Law No. 120-99 on Waste Management;

Non Hazardous Solid Waste Environmental Management Standard NA-RS-001-03; Integral Infectious Waste Management Standard; Infectious Radioactive Waste Environmental Management Standard NA-DR-001-03; as well as the municipal resolutions related to the solid wastes management are also contemplated herein.

CHAPTER II

DEFINITIONS

- **Storage:** The action to temporarily hold wastes prior to their discharge to the collection service for their later valuation or final disposal.
- **Utilization:** Any industrial or manual process with the purpose of recovering or transforming the resources or useful materials in the wastes.
- **Urban cleaning:** A set of activities and process comprising the storage, discharge, collection, haulage, transfer, treatment, disposal, sweeping and cleaning of public roads and areas, recovery, reuse and recycling of municipal solid wastes. A synonym of public cleaning.
- **Rubbish:** A synonym of municipal solid wastes and solid wastes.
- **Dumping site:** A Site or dumping place where solid wastes are disposed of in an uncontrolled manner, where no management techniques and no control exists
 - in addition to posing risks to human health and the environment. A synonym of dumping place or garbage heap.
- **Biogas:** a blend of gases generated by anaerobic decay of organic wastes, which is mainly composed of methane and carbon dioxide.
- **Dumping place:** An open place where wastes are disposed of indiscriminately without receiving a sanitary treatment. A synonym of dumping place or garbage heap.
- **Junk:** Every motor vehicle, tow, aerial or marine haulage, in whole or in pieces, which does not work or abandoned. Metal fragments, pieces and parts from a deteriorated vehicle or equipment which has been abandoned. Product remains generated during the manufacturing or consumption of a material or product. Applies to used items, in whole or not, as well as fragments arising from the manufacture of a product. Used mainly for metals and glass as well.
- Classification: To select or disaggregate various waste components, normally in a manual way.
- **Compacter:** Any equipment or machine that reduces the volume of solid wastes by applying a direct pressure.
- Compost: A material useful for conditioning agricultural land, which is obtained by biochemical transformation of an organic substrate via a natural or controlled process.
- **Composting:** A process, by which the organic waste biologically decays under controlled conditions to the point where the end product can be handled, stored in a warehouse and applied to the soil, without negatively impacting the environment.

- Solid Waste Contamination: Degradation of the environment's natural quality as a direct or indirect result of the inadequate presence, management or disposal of solid wastes.
- **Container:** a receptacle with variable capacity to temporarily store or haul solid wastes.
- Solid waste: Refer to municipal solid wastes.
- **Refuse:** Solid or semisolid waste of animal or vegetal origin, subject to putrefaction and generated from manipulation, preparation and consumption of foodstuff
- **Final disposal:** Final manipulation and discard process of solid wastes.
- **Urban Cleansing Entity:** A natural or artificial, public or private person in charge or responsible for rendering cleaning services in a municipality. Currently the urban cleansing entity in the country is the municipality.
- **Debris:** Remains from demolitions and constructions, which are mainly constituted by bricks, ceramics, concrete, irons, wood, plastic and others, and excavation soil that includes vegetal soil and subsoil rocks.
- **Health facility:** A place, site or installation where activities related to the attention of human or animal health are carried out.
- Transfer Station: A mid-step permanent or provisional facility that receives solid wastes from low-capacity collection units and transfers them, whether processed or not, to higher capacity units for their haulage to the final disposal site.
- Environmental Impact Survey: A set of technical and scientific activities aimed at identifying, forecasting and controlling environmental impacts in a project and its alternatives, delivered in the form of a technical report and prepared as per the criteria established by the standard in force.
- Environmental Impact Assessment: It is the policy and environmental management instrument comprised by the group of procedures, studies and technical systems that calculate the outcome from a certain work, activity or project upon the environment.
- **Geological fault:** A rupture or rupture zone on the earth crust where the formation or layer on one side suffers a displacement with respect to the other side.
- **Dumping site gases:** All the gases arising from dumped wastes.
- Waste generator: Every natural or artificial, public or private person that may create or generate solid wastes as a consequence of its activities.
- Waste Management: A group of actions aimed at treating the wastes with the most appropriate destination according to their characteristics, so that the human health is not jeopardized and without using procedures or methods that affect the environment.
- Management: Refers to the handling or control (of wastes). See handling.
- **Incineration:** The process of controlled thermal oxidation of any matter.
- Solid waste facility: Any property, premises, structure, vessel or any place used for the storage, collection, recovery, recycling or final disposal.
- **Public Cleansing:** A synonym of urban cleansing.
- Leachate: A liquid that seeps through solid wastes, comprising water from rainfall, runoff, humidity of rubbish and decay of organic matter that carries away dissolved and suspended materials.

- **Sludge:** A liquid with a high content of suspended solids from water treatment, wastewaters or from other similar processes.
- **Handling:** A set of operations aimed at giving the wastes the most adequate destination according to its features with the purpose of preventing damages to
 - human health or the environment. It includes the storage, sweeping of streets and public constructions, collection, transfer, haulage, treatment, final disposal or any other operation required.
- Inert matter: Glass (bottles and window glass), paper and cardboard, woven materials (wool, rags and clothes), metals (non-ferrous and ferrous), plastics, wood, rubber, leather, crockery and ceramics, soils, dross, ashes and others. Despite the fact that paper and cardboard can be fermented, as well as wood and, to a lesser degree, certain natural fabrics and leather, they are deemed as inert due to their great stability in comparison with organic matter. Plastics are organic non-fermentable matter.
- Organic or decay-prone matter: A material that may be decomposed by anaerobic microorganisms with such speed that they become a nuisance, such as furious odor, attraction of rodents and insects, and so on.
- **Discarded tire:** A tire that lost its utility due to wear, damage or defect and unfit for its original purpose.
- Tire: A tread or inflatable rubber designed to cover the wheel of a vehicle.
- **Seepage:** A synonym of leachate.
- **Privatization:** Granting of concessions to the private sector for the municipal solid wastes management.
- **Recycling:** Transformation of materials segregated from the wastes, within a production process, to be incorporated as raw material to the productive cycle.
- **Collection:** Any operation consisting of picking up, classifying or preparing wastes for their haulage.
- Safety landfill: A sanitary landfill aimed at the proper final disposal of potentially hazardous and special wastes.
- Sanitary Landfill or Controlled Dumping Site: An engineering technique for the proper containment of municipal solid wastes; it comprises the scattering, arrangement and compacting of wastes, their covering with soil or other inert matter, at least on a daily basis, controlling of gases, leachate and proliferation of vectors, with the purpose of avoiding contamination of the environment and protecting the population.
- **Hazardous Waste:** A solid or semisolid waste that, given its toxic, reactive, corrosive, radioactive, inflammable, explosive or pathogenic features, poses a substantial risk, actual or potential, to human health or the environment.
- Waste: Any solid, liquid or gaseous material, be it isolated or mixed with others, stemming from an extraction process from the nature, transformation, manufacture or consumption thereof that its owner decides to abandon. Wastes are deemed as solid ones when they are not in liquid or sludgy form. Regarding the source of generation the following types are distinguished:
 - a) Commercial Solid Waste: Wastes generated at commercial and trading premises such as warehouses, depots, hotels, restaurants, cafeterias and market stalls.

- **b)** Household solid waste: Wastes that due to their nature, composition, amount and volume arise from activities conducted at households or any similar facility.
- **c)** Farming waste: Those wastes generated from breeding of animals and production, harvesting and reaping of crops and trees that are not used for fertilizing soils.
- **d) Biomedical waste:** Those wastes generated throughout the diagnosis, treatment, rendering of medical services or immunization of human beings or animals from the research related to the production thereof or in assays with biomedical products.
- e) Construction or Demolition Waste: those wastes arising from construction, demolition and repairing of buildings or from the demolition of pavement, houses, commercial buildings and other structures.
- **f) Industrial waste:** wastes generated from industrial activities as a consequence of production processes, equipment and facilities maintenance and treatment and control of pollution.
- **Special Solid Waste:** Solid wastes that, due to their quality, amount, magnitude, volume or weight may pose risks and, therefore, require a special management. It includes wastes with expired consumption dates, wastes from establishments employing hazardous substances, sludge, bulky or heavy waste that are legally or unlawfully managed alongside municipal solid wastes.
- Municipal solid wastes: a solid or semisolid waste from urban activities in general. It may have a residential, household, commercial, institutional and small industry origin or from sweeping and cleaning of roads, markets, public areas and others. Its management belongs to the municipality or to a governmental authority. A synonym for rubbish and solid waste.
- Pathogenic solid waste: a waste that, due to its characteristics and composition, may become an infection reservoir or carrier to human beings.
- Radioactive solid waste: a waste that emits electromagnetic radiations at levels above the background natural radiations.
- Toxic solid waste: a waste that, due to its chemical or physical characteristics and their concentration and exposure time may cause harm and
 - even death to living beings or may cause environmental pollution.
- **Biodegradable waste:** all wastes that may decompose by anaerobic or aerobic means, such as food and garden waste.
- **Bulky waste:** Those household wastes that, given their shape, size or weight are difficult to be collected or hauled by conventional collection services.
- **Reutilization:** to reuse a product or material several times without treating it. It equals a direct recycling process.
- Scavenger: a person in charge of separating the waste.
- **Separation:** an activity that consists of recovering reusable or recyclable materials from wastes.
- **Urban Cleansing Service:** the urban cleansing service comprises the following activities related to the municipal solid wastes management: storage, presentation, collection, haulage, transfer, treatment, sanitary disposal, sweeping and cleansing of public roads and areas, recovery and recycling.

- **Haulage:** The operation by means of which wastes are carried on special vehicles from the generation source or storage site to the treatment or final disposal facilities.
- **Treatment:** a process of chemical, physical or biological transformation of solid wastes to modify their characteristics or exploit their potential and from which a new solid waste may be created with different features.
- Valuation: any process that allows the utilization of the resources found in the wastes without jeopardizing human health and without employing methods that may harm the environment.
- **Vector:** It comprise flies, mosquitoes, rodents and other animals that may directly or indirectly transmit infectious diseases to humans or animals.
- **Dumping site:** A synonym of dumping place or garbage heap.
- **Dumping:** Disposal of wastes under determined conditions in a space. According to the severity of conditions and the dumping space with regards to the

pollution generated, the following types are established:

- a) Controlled dumping: The conditioning of wastes in a space devoted for such purpose, so it does not alter the wastes and pose a present or future indirect or direct hazard upon human health or the environment.
- **b) Uncontrolled dumping:** unconditioned disposal of wastes. That activity whose polluting aftermath is unknown.
- **c) Semi-controlled dumping:** conditioning of wastes in a determined space that partially prevents effects on human health or pollution of the environment.

CHAPTER III

ON THE PRINCIPLES

Article **Quality of Life.** The integral solid wastes management is aimed at enhancing the quality of life of National District inhabitants.

Article **Equality.** Mechanisms shall be incorporated to ensure that the service is equally provided to all sectors of the population with the same level of quality and efficiency.

Article **Fees.** The fee system shall take into account differentiation with respect to the generation, income level, type of waste and productive activity. (NOGAR 3.9)

Article **Preservation of the environment.** The responsibility of the Municipality, society and each inhabitant in the National District is to protect, conserve, enhance, restore and make a sustainable use of natural resources and the environment and eliminate unsustainable production and consumption patters.

Article

Fundamental principles. The current code applies the valuation, shared accountability and integral solid waste management principles under environmental efficiency, technological, economic and social criteria.

Article

Who contaminate pays. The necessary measures shall be taken to enforce payment and/ or incorporation of environmental recovery costs by solid wastes onto those responsible for such contamination. (NOGAR 3.8)

Article

Caution principle. Throughout the stages of integral solid waste management, the technical procedures contained herein shall be observed, as well as others that ensure the prevention of impacts and conservation of the environment, and health protection.

Article

Citizen participation. The municipality shall ensure the participation from the society and the inhabitants of the National District in the integral solid waste management.

Article

Environmental education. The municipality shall implement a permanent environmental action plan oriented towards stimulating citizen participation in the proper management of the solid wastes generated.

Article

Technology. Waste management shall incorporate the proper technology by considering the cost/ benefit ratio to ensure the continuous improvement and sustainability, efficiency and service quality in the long term.

Article

Labor safety. All the necessary mechanisms shall be employed to protect the physical integrity and health of the service worker through the permanent training and supplying the personal protection equipment.

Article

Shared Responsibility. The shared responsibility of the producers, importers, exporters, traders, consumers and the municipal and executive power authorities is fundamental to achieve that the integral solid waste management is environmentally efficient, technologically viable and economically feasible.

CHAPTER IV

SHARED RESPONSIBILITY

Article

Common interest. The municipality, society and citizens in general have the common interest of preserving the environment, protecting the health, conserving the city aesthetics and fostering the sustainable development of the economic activities in the National District.

Article

Integral solid wastes management. In order to achieve the economic and social profitability in the integral solid wastes management, the agreed and structured involvement of citizens and their social organizations is required in coordination with the municipality.

|Article

Advisory Committee. An Advisory Committee for the Integral Solid Waste Management is created and integrated by the representatives of the main organizations from the National District society.

Paragraph I. Initially the Advisory Committee will be constituted with a representative of the following organizations:

- Secretariat of State for Public Works and Communications
- Secretariat of State for Tourism
- Secretariat of State for Health and Social Assistance
- Secretariat of State for Environment and Natural Resources
- Emergencies National Commission
- Neighbor Committee Unit of the Electoral District No. 1
- Neighbor Committee Unit of the Electoral District No. 2
- Neighbor Committee Unit of the Electoral District No. 3
- Neighbor Committee Unit of the Historical Zone
- Autonomous University of Santo Domingo
- Dominican School for Engineers, Architects and Surveyors
- National Council of the Private Company
- Hotels Association of Santo Domingo
- Dominican Construction Chamber
- National Organization of Commercial Enterprises (ONEC)

Paragraph II. The Advisory Committee's powers and responsibilities are as follows:

- a) To observe and enforce the present Regulation.
- b) To get involved in the integral solid waste management policy establishment.
- c) To be informed on the performance of service providers.
- d) To participate in the fee structuring for the service provided.
- e) To analyze and recommend the granting of subsidies for the payment of the service to low-income families.
- f) To participate in the preparation of the DIGAU's budget.

Article

Neighbors involvement level. The municipality shall facilitate and strengthen the actions of the neighborhood committees and shall promote the creation of the Cleansing and Beautification Committee within each committee

Paragraph I. The Cleansing and Beautification Committee's powers and responsibilities are as follows:

a) To observe and enforce the present Regulation.

- b) To verify the quality of the service being rendered.
- c) To present claims due to deficiencies that might arise on the quality of the service and demand the proper correction.
- d) To ensure that the neighbors meet the solid waste discharge requirements.
- e) To demand neighbors to have the front of their houses cleaned up.
- f) To promote the timely payment of the bill for the service received.
- g) To organize the necessary activities to achieve the permanent enhancement of the service quality in coordination with the municipality.
- h) To participate in the organization of environmental education programs.

Paragraph I. The Environmental Information Center shall have an ongoing information and training program directed to the municipal officials and representatives from the organizations that constitute the society of the National District and citizens in general.

Article **Exclusiveness.** The Municipality has the exclusive operation, exploitation and management of non-hazardous solid wastes throughout the National District.

Obligatoriness. The collection and final disposal of solid wastes are mandatory to every inhabitable property, commercial and industrial premises, as well as all public and federal facilities in the National District.

Municipality Responsibility. Provide the collection, haulage, sweeping, transfer, treatment and final disposal service of non-hazardous solid wastes under conditions that ensure their quality, continuity and regularity and are efficient for their customers, as well as to protect public health, preserve the environment and natural resources, aesthetics and cleanliness of the National District.

Paragraph I. Solid waste management shall be under sanitary control in order to avoid damages to the environment, consisting of soil and water pollution (superficial and underground waters), furious odors, procreation of disease vectors and other public nuisance.

Responsibility of Public in General. Natural or artificial persons, public or private, whether in transit or permanent ones, have the obligation to take part in the cleanliness in the National District along with the Municipality, thereby reducing the generation of solid wastes and discharging them in the manner and schedule established, and paying on a timely basis for such service rendered.

Objective Responsibility. Without prejudice of the sanctions that apply, anyone that causes harm to the environment, natural resources or people's health because of the emission, dumping, discharge or disposal of solid wastes shall be held with objective responsibility for the damages

Article

Article

Article

Article

that these may cause and therefore shall be obliged to materially repair it at it cost, if possible, and indemnify it in accordance with the law.

Article

Legitimate interest of the Municipality. The General Environmental and Natural Resources Law acknowledges that any person or citizens association are legally empowered to demand and claim any fact, act, process or omission or it hindering, which may or might have caused a damage, degradation, impairment, pollution and/ or deterioration of the environment, natural resources or people's health.

Paragraph I. The municipality will make use of the law to declare and complain against those who dump, discharge or dispose of solid wastes in contravention with the established in the present Regulation.

Article

Planning. Waste management will be established based on the main plan of the integral solid waste management that shall define the actions in this regard.

CHAPTER V

PREVENTION ON THE GENERATION AND VALUATION OF THE SOLID WASTE

Article

Preventing on generation. The Municipality shall promote the establishment of a society oriented towards the resource preservation by minimizing the solid waste generation.

Article

Minimizing. The Municipality in collaboration with the Secretariat of State for Environment and Natural Resources, the Secretariat of State for Public Health and Social Assistance and other national and international organizations shall develop programs for waste reuse and recycling.

Paragraph I. An educational program shall be promoted and maintained encouraging the public participation on the effective reduction of solid waste generation in the National District.

Article

Productive sector participation. The Municipality shall promote and encourage the industrialists to perform industrial re-conversion processes related to clean technology implementation and to perform decontamination, recycling and waste reuse activities.

Paragraph I. The Municipality shall negotiate with the government's corresponding authorities the design and application of economic instruments to promote the minimization in the productive sector.

Article

Formal activity. Enterprises dedicated to assessing and recycling materials shall commit their participation in programs promoted by the Municipality aimed at waste minimizing.

Article

Segregation. Solid waste segregation shall only be allowed at the sources of origin and on sites expressly authorized by the corresponding authority and the Municipality.

Article

New facilities. New facilities dedicated to reuse and recycle waste by assessing or energy advantage systems shall previously submit themselves to the Environmental Impact Evaluation procedure to guarantee the pollution prevention of the soil, surface and underground waters, and air.

Article

Informal activity. The Municipality and other authorities and organizations related to solid waste management shall establish programs to organize, promote and advice people who are informally dedicated to the segregating and trading of the useful materials contained in the solid waste.

TITLE II

OPERATIVE STRUCTURE

CHAPTER VI

PARTICIPATION FROM THE PRIVATE SECTOR

Article

Third party subcontracting. The solid waste management generated in the Municipality is a public service that may be subcontracted.

Paragraph I. The Municipality shall maintain its responsibility on rendering the service even if is hired by thirds.

Paragraph II. Delegation of this responsibility shall be based on transparency criterion and always aimed at seeking the common good.

Article

Fundamental conditions. In the event of hiring enterprises to provide one or several stages of the service, the Municipality shall establish the necessary administrative mechanisms to guarantee three fundamental conditions:

- a) A clear definition of the type and scope of services hired;
- b) A previous analysis of the offers, choosing the most economically and technically feasible; and

c) Control of Contract fulfillment

Paragraph I. DIGAU shall organize a duly trained administrative unit to manage contracts subscribed to the private sector.

Article

Regulatory framework. The Municipality shall incorporate in their third party subcontracting procedures measures that ensure the fulfillment of the following aspects:

- a) Guarantee the service quality to the whole population.
- b) Efficiently provide the service without interruption.
- c) Obtain verifiable scale economies on the final disposal phase.
- d) Guarantee the competition freedom and avoid abuse derived from a dominant position.
- e) Establish procedures that guarantee the users the access to the service and their participation in managing and supervising the service provided.

CHAPTER VII

ADMINISTRATIVE AND FUNCTIONAL STRUCTURE OF DIGAU

Article

Responsible Unit. The General Directorate of Environmental and Urban Cleansing Management (DIGAU) is the entity from the municipality in charge of the non-hazardous integral solid wastes management generated in the National District and of the enforcement of the present Regulation.

Article

Functions of the General Directorate. The following are the main functions of the DIGAU:

- The integrally management of the solid wastes generated in the National District.
- Provide the solid waste management service in accordance with the dispositions established in the present Regulation.
- Maximize the use of the resources allocated by the municipality under the best efficiency and efficacy criteria in the provision of the service.

Article

Administrative and functional structure. The DIGAU shall have an organizational and functional structure that allows the efficient and effective solid wastes management.

Paragraph I. In functional terms, the DIGAU shall develop the following activities:

Planning

Article

- Operations
- Mechanic equipment
- Human Resources
- Trade and Customer Service
- Quality control and costs
- Contract Administration

Article **Responsibility of the General Manager.** Below are the responsibilities of the DIGAU's General Manager:

- Perform and enforce the present Regulation.
- Guide the implementation of the director plan.
- Manage the contracts with the private sector.
- Supervise the performance of the DIGAU officials.
- Request the hiring and dismissal of the DIGAU officials.
- Verify that the provision of the service fits the quality of the service provided.
- Assist and solve claims of the Cleansing and Beautification Committees.
- Verify that the expenses disbursed refer to the real cost contemplated.
- Coordinate the DIGAU activities with those from other administrative units of the municipality to achieve a greater synergy.
- Maintain the coordination with other governmental, private sector and international organizations.

Budget. The municipality budget shall contain a special line item comprising the necessary resources to assist the integral solid waste management.

Paragraph I. The municipality's accounting system shall record the income and expenses in connection with the integral solid wastes management in order that it can be able to determine and controlled the real cost of the service provided.

TITLE III

SCOPE OF THE SERVICE

CHAPTER VIII

TYPE OF WASTES TO BE MANAGE

Article **Residential.** Waste that due to its nature, constitution, amount and volume is generated in activities carried out in the housing or in any similar establishment.

Article

Institutional. Waste generated from the activities carried out in the public and private offices, education centers, hospice and reclusion centers.

Article

Business. Waste generated from business and commercial establishments such as public and private offices, warehouses, depots, hotels, restaurants, cafeterias and market places.

Article

Industrial. Waste generated from industrial activities as a result of production processes, equipment and facilities maintenance, treatment and pollution control and of construction debris.

Article

Non-hazardous hospital waste. Non-hazardous waste generated from the health establishment activities and with similar characteristics to business waste.

CHAPTER IX

SERVICE MODALITIES

Article **Ordinary residential service (ORS).** Comprise the residential waste management.

Article **Special residential service (ERS).** Includes the management of the following types of solid waste:

- a) Resulting from small construction works, remodeling or demolition, useless goods and waste from pruning and garden cleaning.
- b) Waste and chemical hazardous products generated from household.
- c) Other waste that due to its nature, constitution, size and volume shall be considered as special from the Municipality's view.
- d) Waste that because of its location, is difficult to manage due to its inaccessibility to collection vehicles.
- e) Waste not considered on the items above, and that requires due to its management, special conditions.

Article **Institutional, business and industrial service (IBIS).** Includes the management of the following types of solid waste:

- a) Institutional solid waste
- b) Business solid waste
- c) Non-hazardous solid waste
- d) Non-hazardous hospital waste

TITLE IV

PUBLIC AREAS CLEANSING

CHAPTER X

ROADS AND PUBLIC AREAS CLEANSING

| Article | Regarding responsibility on roads and public areas sweeping and |
|---------|---|
| | cleansing. The sweeping and cleansing tasks of roads and public areas |
| | correspond to the Municipality and it shall be perform with the necessary |
| | frequency, so that they can be always clean. |

Article **Sweeping procedures.** The sweeping of roads and public areas can be carried out in a manual or automated form. The watering of water will be completed when it is feasible.

Article **Waste storage.** Waste coming from roads and public areas sweeping shall be stored in containers adequate to maintain the ornamentation and hygiene until their collection and haulage to the final disposition site.

Article **Pedestrian containers.** The Municipality shall place containers on street sidewalks for the exclusive storage of solid waste generated by pedestrians in sufficient numbers and capacity, according to the pedestrian and automobile traffic intensity.

Article

Responsibility of the citizens. All citizens are obliged to maintain their residence or establishment's frontal area clean and hygienic and collect waste or refuse found on the sidewalk.

Paragraph I. Residential complexes' tenants shall maintain clean the property's frontal area, as well as common and parking areas.

Paragraph II. Production or service establishments' administrators are responsible for keeping porches, patios, gardens and other inner areas clean, as well as the external sanitizing of the facility and removing residues and weeds.

Article Cleaning of the rain and sanitary sewerage. Waste resulting from cleaning the sewerage or absorption wells shall be removed from public roads, transported and disposed of adequately.

Article Responsibilities regarding the construction material management.

Those who manage construction materials in all their forms are obliged to fulfill the following dispositions:

Paragraph I. Debris from construction or reconstruction works of edifications, streets, sidewalks, aqueducts and sewerage shall be storage

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in deposits of appropriate capacity and removed daily from the public areas.

Paragraph II. Construction materials shall not be placed on the public areas except when loading or unloading; this operation, once begun, shall be continued in successive day's works until finished; the area on the public way where this activity takes place shall be left free of waste.

Paragraph III. City cleaning actions shall not be impede or obstructed by construction, tearing down or repair of constructions' activities. The Municipality will order to remove immediately the materials or equipments that are causing damages.

Paragraph IV. The Municipality has available for the citizens a special collection and transport service of debris (IBIS). The persons interested in offering this service must apply for the corresponding operation permission in the Municipality.

Article

Illegal discharge. Discharge of solid waste or debris is banned on coastal limits, everglades, rivers, lakes, protected areas and wetlands.

Article

Materials transport. All haulage means devoted to carrying materials shall have a canvas cover to prevent littering public roads as they move.

Paragraph I. Cleaning Instruments shall be maintained in the vehicle to ensure that, in the event of a spillage, immediate pick-up will follow.

Article

Loading and unloading goods. People ordering or in charge of the loading or unloading of goods or materials on public ways shall remove fallen wastes.

Paragraph I. The responsible for this event shall be the one who occupies the property where the loading or unloading took place.

Article

Ambulatory and fixed vendor stands. Ambulatory and fixed stands vendors are obliged to collect, provisionally store and adequately dispose of in public containers, the waste generated by their activities.

Article

Special events. During special massive events and shows, a storage and collection system for waste generated on site shall be arranged, for which purpose the organizer shall coordinate with the Municipality and pay for the special service cost in advance.

Article**Regarding empty plots of land.** Empty property owners shall keep them free of weed and all sorts of solid waste accumulation.

Paragraph I. In the event that the owner failed to comply with these guidelines, or has an unknown address, the Municipality shall clean it and the operation's cost shall be charged to the property's owner.

Paragraph II. When the accumulated cleaning debt exceeds 25% of the cadastral survey value, ADN may inscribe in its favor a judicial mortgage.

Article

Regarding Animals and their depositions. The owner or person in charge of domestic animals is responsible for picking up and cleaning sidewalks or public areas where the animal defecates.

Article

Tree and garden pruning. Only the Municipality may prune or dispose of trees located on roads and public spaces.

Paragraph I. The Municipality will be able to extend and authorization to the electricity companies, phone and cable services, aqueducts, and others, so they can carry out a certain type of tree pruning in the public areas. The pruning waste should be removed by who generates it and transported to the place pointed by the Municipality.

Paragraph II. The Municipality makes available to the public a special service of collection and haulage (ERS) of tree pruning on private properties and of the tree pruning on the public areas carried out by thirds authorized.

Paragraph III. The Municipality will only remove small quantities of the trees and bushes pruning from the residences, only if they are properly conditioned in the containers authorized by this Regulation and that allows their easy manipulation.

Paragraph IV. The Municipality will not collect the pruning waste, that in their opinion they can harm the compacting system of the collection vehicle or put in danger the security of their operators.

Article

Abandoned vehicles. Vehicles or their parts abandoned on streets, roads, empty plots of land and parking areas shall be removed by the Municipality for their destruction or possible recovery of raw material.

Paragraph I. In the event that the owner is identified, he or she shall be required, through a notification, to remove it by his/her own means or pay for the towing cost within a term of thirty days calendar.

Article

Tires. Public and private haulage vehicles' tires, rejected or not, shall always be stored under roof, according to requirements established by the Fire Department on solid fuel storage sites fire protection.

Article

Non-authorized street advertising. The Municipality, in coordination with corresponding authorities, guarantees removal of advertising on public roads.

Article

Health hazard. Sanitation authorities shall report to the Secretariat of State for Environmental and Natural Resources, those establishments or places that pose a danger to the health or life of the population through improper or non-hygienic accumulation of solid waste, so that the

Secretariat orders the corresponding cleaning and executes the administrative and safety measures.

TITLE V

SERVICE OPERATIONS

CHAPTER XI

STORAGE AND CONTAINERS

Section I General conditions

Article Collective storage area. All multi-family housing, institutional, business or industrial constructions, or as determined by the Municipality, shall have a storage area.

Article **Requirements**. Areas for collective storage in buildings shall comply, at least, the following requirements:

- a) Floor, wall and ceiling finishes shall be smooth to allow their easy cleaning and prevent adequate environments to insects and microorganisms development; corners between walls, and the latter and floors shall be rounded.
- b) They shall have efficient ventilation, water supply, drainage and fire control systems.

Paragraph I. The Municipality shall supply the professional responsible for the building's design, the minimum dimensions and other requirements that the storage area must comply.

Paragraph II. When the building is finished, the Municipality shall perform an inspection to ensure proper compliance specifications of the storage area and shall issue a certification that shall be part of the conditions for the building to be habitable.

Storage boxes. If the access of the collector truck to the buildings is hindered, a storage box within the property's perimeter could be installed.

Paragraph I. The Municipality shall provide the technical aid necessary to solve these situations and facilitate storage and later collection.

Article **Storage boxes feature**. The Municipality will determine the size, capacity, number and load and unload system of the storage boxes or containers and their dimensions must correspond with the standard size with the purpose that they adjust with the collection system used by the Municipality and that cover with the generator needs.

Article

Article

Sanitation responsibility. Cleaning around the perimeter of the storage box of private use, shall be the exclusive responsibility of its users.

Article

Customers' obligations. Ordinary solid waste management service clients, shall have the following obligations regarding storage:

- a) Store in a sanitary manner the solid waste generated according to what is established in this Regulation.
- b) No depositing in containers intended for collection: liquid substances, excretions or solid waste contemplated for special service.
- c) Placing containers in the collection sites, according to the Municipality's established frequency and schedule.
- d) Keeping containers in good shape.

Article

Containers. The Municipality will determine the features that the container must meet for the storage and delivery of the waste, and as minimum must be the following:

- a) Weight and construction to facilitate handling during collection.
- b) Built of waterproof material, easy to clean, corrosion proof, such as plastic or metal.
- c) Tight-fit lids that facilitate emptying during collection.
- d) Built in such way that when closed or covered, water, insects or rodents cannot have access to them, as well as preventing leakage from liquids through the sides or bottoms.
- e) The containers' capacity shall agree with that established by the Municipality and shall cover the generator needs.

Article

Plastic Bags. Disposable containers used for storing solid waste through ordinary service, shall be made from plastic and shall at least, include the following characteristics:

- a) Their resistance shall withstand the tension exerted by the solid waste and by its manipulation.
- b) Their capacity shall be in accordance with what is established by the Municipality.
- c) May be closed by means of a fixed-strap device or a knot.

Section II

Single-family housing storage

Article

Single-family housing. In households, the right capacity containers shall be placed according to the amount of waste intended to be deposited in them, built from durable, corrosion-resistant, washable materials and with lid.

Paragraph I. Inside the container a plastic bag will be placed which dimension must exceed at least ten centimeters from the height of the container to facilitate later its closure.

Paragraph II. Containers shall be kept inside the household until their collection.

Section III

Multi-Family Housing Storage

Article

Multi-family residential. In multifamily constructions, a space shall be reserved for placing storage containers for the solid waste generated at the site.

Paragraph I. Intended spaces shall not obstruct public roads; they shall be of adequate dimensions and shall be kept clean and in satisfactory conditions.

Paragraph II. Collectors or central ducts shall be kept equally clean, without waste adhered to their walls and shall be periodically disinfected.

Paragraph III. Wastes shall be dumped in the collectors duly packed and in adequate dimensions.

Section IV

Storage in institutions, businesses and Industries

Article

Waste from retail businesses and industries. The Institutions, retail and industrial establishments generating solid waste shall have storage facilities with the following characteristics:

- a) Containers with adequate capacity for the amount of waste generated
- b) Compatible with collection equipment
- c) Built from durable material, corrosion-resistant, washable and with lid.

Paragraph I. Containers shall be kept clean and in good shape, as well as, the spaces where they are located. (NOGAR 5.3.13)

Article

Concentration of people. The Municipality orders that the service establishments, businesses, gastronomy, bus terminals, parks, recreational centers and other enterprises, must place adequate containers so the customers and pedestrians can dump small-sized solid waste: papers, wrappings, cigarette butts, and others.

Article

Food handling. In restaurants, supermarkets, hotels and any other establishments where foods are handled, containers intended for storing organic solid waste shall be kept.

Paragraph I. Containers shall be periodically washed; all grease removed and kept in booths or closed quarters that prevent access from any animal.

Paragraph II. Waste in very large establishments shall be kept refrigerated in a temperature that stops its decomposition.

Section V

Storage in public containers

Article

Public containers. The Municipality will have available public containers for solid waste storage.

Paragraph I. Placing solid waste outside, on or around these containers is forbidden.

Paragraph II. These containers shall be kept in hygienic conditions and good shape, and shall be placed where they do not obstruct vehicle or pedestrian traffic.

Paragraph III. The Municipality will sanction those who damage the containers.

CHAPTER XII

DISCHARGE

Article

Routes and schedules. The Municipality shall establish the dispositions, frequencies, routes and schedules for discharge, collection and haulage of solid waste, so that the waste is not altered or fosters conditions against people's health or pollutes the environment.

Paragraph I. The Municipality shall let the citizens know any changes in the frequency or schedules, through social media broadcasting at least fifteen (15) days in advance.

Article

Discharge. Solid waste discharge must be carried out according to the Municipality instructions.

Article

Inaccessible location. Citizens shall transport their solid waste to the sites established by the Municipality whenever the collection vehicle cannot reach them due to poor road conditions or street dimensions.

Article

Containers and bags placement and removal. The containers and bags shall be placed at the collection sites on schedules specified by the Municipality.

Paragraph I. Returnable containers shall be removed from the discharge site after collection.

Paragraph II. In the event that the collection service is not rendered due to forces of nature or any other random act, containers and bags shall be returned to their place of origin until the service is restored.

Article

Regarding hazardous chemicals. It is forbidden to deposit or pour chemical products and/or hazardous materials of domestic use in solid waste containers or discharge bags, such as puncturing or cutting materials, oil, lubricants, grease, disinfectants, detergent, solvents, insecticide, raticide, lacquer, varnish, lye, paint, wood protectors and cleaning chemicals in general, automotive, watch and domestic appliance batteries.

Paragraph I. The Municipality shall provide a special service (ERS) to take care of the adequate management of these types of waste and dangerous chemical products generated in households.

Article

Landscaping and garden residues. Landscaping or garden waste shall be kept in such a way that its handling and placement in the public way is facilitated (NOGAR 5.3.14)

CHAPTER XIII

COLLECTION, COLLECTION VEHICLES AND HAULAGE

Article

Responsibility. It is the sole Municipality's responsibility to collect all solid waste delivered or submitted by its ordinary service clients, always that this presentation and discharge conforms the dispositions contained in this Regulation.

Article

Collection service. Solid waste collection shall be done by the Municipality according to established routes, assigning the necessary human resources and equipment to effectively meet the schedule, frequency and quality of service offered.

Article

Exceeding waste. Haulage of waste outside the collection box shall not be allowed.

Article

Scattering or spreading waste. The Municipality and the private enterprise must prevent waste from falling or spilling on the public way while being transported, or liquids resulting from waste mechanical compaction.

Paragraph I. In the event of leakage or spillage, the necessary actions of cleaning and sanitation shall be taken

Paragraph II. All the collection trucks must have the necessary utensils and tools to pick up spilled waste.

Paragraph III. All the collection trucks must have storage devices to collect liquids resulting from waste compaction.

Article

Closed plots of land. Whenever residues accumulate inside plots due to absence or deficiency in its closure, the cleaning, collection and haulage up to the disposal site shall be in charge of the plots' owner.

Paragraph I. In the event that the Municipality performs such cleaning, collection and haulage, it shall be considered as a special service and will be performed under the owners' expense.

Article

Vehicles. Vehicles intended for solid waste collection and haulage shall be kept in good mechanical and body condition and shall meet the sanitary conditions to render the service.

Paragraph I. The Municipality shall set the manner of vehicle identification.

Paragraph II. Vehicles not meeting the required conditions shall be adapted or replaced.

Article

Open vehicles. Use of open vehicles in collection and haulage shall only be allowed when closed vehicles are not available.

Paragraph I. Open vehicles may be used for transporting pruning, debris or non-putrefying voluminous waste; in this case, all solid waste will be obligatorily covered with a canvas to avoid spillage.

Article

Vehicle washing. All vehicles and equipment utilized, shall be washed at the end of every working day in order to keep them in conditions that do not pose a threat to health and aesthetics.

Paragraph I. The cleaning of vehicles shall be performed in sites approved by the State of Secretariat for Environment and Natural Resources in observance of sanitary and environmental control norms.

Article

Circulation. Vehicles and equipment intended for solid waste haulage shall abide by the current circulation and traffic norms, as well as, avoid being an obstacle to the circulation of other vehicles and people.

Article

Animal food. Haulage of waste intended for animal feeding shall be done in closed trucks, designed and used exclusively for such purpose.

Paragraph I. These vehicles shall be kept in perfect sanitation and conservation shape and be disinfected periodically.

CHAPTER XIV

TRANSFER STATIONS

Article **General conditions**. All transfer facilities shall comply with, at least, the following requirements:

- a) Have a sufficient and adequate infrastructure for the integral solid waste management to be transferred.
- b) Guarantee that their activities are not harmful to people's welfare and health and the environment.
- c) Reduce the global costs of haulage and the manpower used in the collection

CHAPTER XV

FINAL DISPOSAL

Article **Current final disposal**. Solid waste generated in the National District shall be finally disposed of in La Duquesa's sanitary landfill.

Control and registration at La Duquesa's sanitary landfill. The Municipality shall keep strict control and registration of the vehicle's type, license plate, National District's site of origin (circumscription and route, public, private and under Contract with the Municipality), total weight, tare, type and weight of the solid waste, time of entry and exit and particular remarks.

Paragraph I. Municipality officials in charge of collection vehicles control and registration, are authorized to gather all information they considered pertinent to protect the Municipality's interests.

Operations' improvement. The Municipality shall actively participate in the improvement of the operative conditions in La Duquesa's sanitary landfill aimed at complying with the requirements established on the environmental norms.

Future final disposal. The Municipality shall negotiate with the competent authorities the construction of a new sanitary landfill that will ensure the correct final disposal of the National District's solid waste for a minimum period of twenty years.

TITLE VI

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Article

Article

QUALITY OF THE SERVICE

CHAPTER XVI

HUMAN RESOURCES

Article **Occupational health**. The Municipality, in safeguarding its employees' health and safety shall apply the following measures:

- a) Preparation of a manual of activities' risk.
- b) Establish continuous training for service lenders aimed at preventing labor accidents.
- c) Continuous training to supervisors of quality control and work accidents prevention.
- d) Provide personal protection gear and uniforms.
- e) Preventive maintenance of collection vehicles to avoid accidents.
- f) Handle containers that exclusively adjust to dimensions and weight standards.
- g) Routinely perform medical check-ups..
- h) Maintain an insurance policy that covers medical attention and professional risk.
- i) Provide its personnel with dressing and shower rooms for bathing and changing clothes after working shifts.
- j) Any other required by the competent authority.

Paragraph I. The Municipality shall keep in its Cleansing School, a continuous training program aimed at controlling work accidents and professional illnesses of its workers including any necessary alphabetizing.

CHAPTER XVII

OUALITY CONTRL OF THE SERVICE

Article **Indicators management**. The Municipality shall use indicators to measure the performance of the integral solid waste management service in order to attain and improve set goals.

Paragraph I. Constant comparison of the values obtained shall be used for decision making and continuous improvement.

Article **Information**. The Municipality shall keep adequate records of service rendered and shall maintain an analysis and control program whose scope and frequency shall be sufficient to determine whether collection, cleaning of roads, public areas, and final disposal services are operating and are accordingly with the Regulations' guidelines and with the corresponding technical and quality standards.

Paragraph I. Citizens shall have free, total and timely access to information derived from the service rendering.

Article

Service levels. The following are the appropriate levels of services quality:

- **a)** Collection quality. The service rendered shall comply with the following provisions:
- **a.1.** Frequencies and schedules pointed to the clients are of mandatory character and any changes shall be communicated with fifteen (15) days in advance.
- **a.2**. All waste handed over adequately, shall be collected and all that scattered or spilled during the collection process shall be picked up.
- **a.3.** Collection vehicles shall meet the appropriate conditions for this activity and shall be in proper working and presentation conditions.
- **a.4.** Vehicles shall have storage devices for lixiviates resulting from compaction and such vehicles shall be washed at the end of the working day.
- **a.5.** The operational noise level shall be kept as low as possible, especially during night shifts.
- **a.6**. Workers are the Municipality image; hence, they shall abide in their activities by all courtesy and educational standards toward clients and public in general, and shall show up duly uniformed and will make mandatory use of all personal safety devices provided to them by the Municipality.
- **a.7.** Collection vehicle drivers shall strictly observe all traffic rules, especially those regarding speed and parking.
- **b) Quality of cleaning of public roads and areas.** The service rendered shall meet the following dispositions:
- **b.1**. Frequencies and schedules established with mandatory character shall be met and any changes will be let known to the public.
- **b.2**. Highways and roads under repair shall be kept clean, sweeping them as frequently as necessary.
- **b.3.** The Municipality shall set pedestrian containers as part of the city's urban furnishing.
- **b.4**. Solid waste placed in these containers shall be collected as frequent as needed.
- **b.5**. The bags containing solid waste from roads and public areas sweeping and cleaning, shall be placed in established locations for their removal by the collection service.
- **b.6**. Verify that fixed vendor stands in public areas have the containers necessary for solid waste deposit resulting from their sales.
- **b.7.** Sanitation inspectors shall demand as part of their activities, the cleaning of roads soiled by the loading and unloading of goods,

- construction work, materials haulage, animal deposing, car washing, garden pruning and other activities.
- **b.8.** Municipality workers, like in the point above, shall show up for work duly uniformed, shall make use of their personal safety devices and shall abide by education and courtesy standards.
- c) Quality at the transfer station. Service rendered shall comply with the following dispositions:
- **c.1.** Work shifts shall be associated to the facilities' capability, working schedule, coverage, frequency and collection schedule.
- **c.2.** Transfer rhythm shall be such that it does not cause vehicles to queue on streets or block traffic.
- **c.3.** Only previously registered and authorized vehicles that comply with the physical and mechanical characteristics to facilitate transfer, shall be allowed into the station.
- **c.4.** Only previously authorized solid waste shall be allowed for transfer.
- **c.5.** Is forbidden dump on the floor the solid waste.
- **c.6.** All solid waste entered during working hours shall have been transferred to the final disposal location. It is forbidden to keep waste from one shift to the other.
- **c.7.** The facilities shall be cleaned after the last work shift.
- **c.8.** A strict record of vehicles entering and exiting, as well as, solid waste transfer shall be kept.
- **c.9.** A transfer station handbook shall be prepared.
- **d) Final disposal quality.** The final disposal waste service shall comply with the dispositions established in the environmental standard NA-RS-001-03 issued by the Secretariat of State for Environment and Natural Resources.

CHAPTER XVIII

CUSTOMER SERVICE

Article

Clients' rights. All physical and moral people residing in the National District shall be entitled to solid waste management services, according to what is established in this Regulation and applicable dispositions.

These shall be their rights:

- a) Demand from the Municipality the efficient rendering of services according to established quality levels.
- **b)** Object to the Municipality whenever a breach of set qualitative and quantitative goals is demonstrated.
- c) Obtain truthful and timely information and adequate guidance regarding services rendered, sufficiently detailed to exercise their rights as customers.

- **d)** Be forewarned about changes in collection frequency and schedule.
- e) Request enough time beforehand from the Municipality to advise the public about the approved fees regime.
- **f)** Object to the Municipality whenever alterations on the billing do not coincide with the approved fees regime.
- g) Receive bills well ahead their due date; the Municipality's or its collections manager shall issue them with appropriate timing and through the adequate means.
- h) Be assisted by the Municipality in the shortest time possible, regarding consultations or submitted claims.

Article **Customers' obligations.** Residential owners and administrators are obliged to:

- d) Meet the obligations set forth in this Regulation regarding solid waste storage, containers and discharge to the collection service.
- e) Collaborate with the Municipality in maintaining the District's sanitation.
- f) Pay the service bill before its due date according to the fees' regime provisions.

Article **Broadcasting to clients**. Clients shall be regularly kept informed regarding the service quality levels and programs to achieve them.

Paragraph I. This information shall be published on a periodic basis by the Municipality using free distribution material and shall be directly given to clients and representatives of Neighboring Committees and Cleansing and Beautification Committees.

Paragraph II. All Municipality clients and the general public shall have access to a free telephone line for submitting claims, give opinions on the service's quality, and receive information.

TITLE VII

PAYMENTS FOR THE SERVICE RENDERED

CHAPTER XIX

FEES AND SUBSIDIES

Z - 30

Establishing real cost. Setting the service real cost shall include real and total expenditures made through DIGAU and other administrative units related with the integral solid waste management service rendered.

Paragraph I. The service total cost shall be set according to the cost accounting, covering a twelve-month period, between January 1st and December 31st of each calendar-year prior to the fee application.

Article

Paragraph II. Without being restrictive, these are expenditures that must be taken into account to determine the cost of service:

Personnel expenditures: includes direct and indirect workers' expenditures such as: fixed personnel, overtime pay, variable remuneration, wages, employer contributions, professional risk insurance, traveling allowances, interim workers, officers performing temporary support activities, etc.

Expenditures from consumption goods and services: includes expenditures from third-party services such as collection, transport, sweeping, final disposal, subcontracting of invoicing and bill collection through private enterprises; likewise, foods, drinks, textiles and clothing. Fuels and lubricants, current use or consumption materials, retaining research, computer expenditures, expenditures due to cleaning service, etc.

Expenditures due to production goods and services: includes expenditures due to final disposal, transfer stations, disinfections, haulage to La Duquesa's sanitary landfill, raw materials, containers and mechanized devices, spares, tools, accessories and general expenditures, etc,

Real investment expenditures: includes the necessary funding for mechanical equipment renewal, such as collection trucks, minor vehicles, complementary equipments, goods depreciation, etc.

Expenditures due to financial investment: Includes loans, credits, down payment to contractors, renegotiation, etc.

Paragraph III. The above accounts shall be charged in their entirety to the service real cost when the DIGAU performs only the functions that covers the waste management services, it will be proportional if the DIGAU, with the same resources renders other functions in which case, a proportional percentage of such expenditure that will be charge to the cost of the service will be determined.

Article **Fee amount.** The fee amount each client must pay, shall be determined by the real cost of the service rendered.

Article **Ordinary residential fee.** The real service cost that each household or residential unit must pay and whose discharge of solid waste does not exceed a daily volume of 30 liters.

Paragraph I. The household or residential unit exceeding the established volume shall be forced to pay for the difference of the volume exceeding the 30 liter volume.

Article

Special residential fee. This is the service real cost, which payment corresponds to the special solid waste management generated in the household or residential unit.

Paragraph I. This service shall be rendered using different vehicles from those used in ordinary collection and shall be invoiced according to volume, amount, location, and solid waste type.

Paragraph II. The Municipality shall prepare and publish the calculation table and established fee.

Article

Institutional, business and industrial fee. This is the service real cost, which must be paid for the solid waste management delivered by institutions, businesses and industries.

Paragraph I. This service shall be rendered using vehicles different from those used in ordinary collection and shall be invoiced per volume.

Article

Submitting, approval and time validity of fees: The Consistory Room shall have knowledge of the fees for rendering solid waste management services.

Paragraph I. Fees shall be submitted separately for the residential category in its ordinary and special service, and that corresponding to the institutional, business and industrial service.

Paragraph II. Fees shall remain in force for twelve months between August 1st and July 31st of each year.

Paragraph III. The Financial Area of the Municipality shall propose the Major the services real cost study indicating the respective fees on March of every year.

Paragraph IV. The Municipal Council shall learn about the sheet of fees for the upcoming period, within three (3) months prior to current fees expiration date.

Article

Subsidies. The Municipality will be in charge of the partial payment of the solid waste management service invoice from families identified under the poverty line.

Paragraph I. Families identified under the poverty line shall apply to qualify for the Municipality's partial subsidy.

Paragraph II. The Municipality shall determine on a case-by-case basis the amount of subsidy to be considered and for a three-year term.

Paragraph III. The Municipality shall include in its annual budget the total amount of subsidy that it shall apply to the service payment.

CHAPTER XX

PAYMENT OF SERVICES

Article

Service collection. The Municipality or its collections administrator will be responsible of collecting the rights for services rendered.

Paragraph. Bills, settlements or debt certificates invoiced for services rendered, according to the fee system established shall have executive power and their collection shall be made through coactive jurisdiction.

Article

Service suspension. The Municipality is entitled to interrupt the service due to payment delays on the amount set by the respective tariff, in circumstances established in the applicable contracts, notwithstanding payment of corresponding interests or fines.

Paragraph. This faculty may only be applied to industrial, business, institutional and special services clients, public or private.

TITLE VIII

PRHIBITIONS AND SANCTIONS

CHAPTER XXI

SANCTIONS AND THEIR PROCEDURE

Article

Is forbidden to all physical or moral people, official, private or mixed entities, existing national or foreign or that will exist in the future in the National District, transitorily or permanently, the non fulfillment of this Regulation.

Article

Infractions to this Regulation shall be penalized according to the laws 120-49 and 64-00, specifically the first one for the sanction established in the article 4 and its paragraphs, and the second one due to the sanctions included in the articles 183 and the following of such law.

Article

For the subjection and corresponding application of the sanction, the procedure, when is a crime to the law 120-99, will start with a rising of

an infraction act by an inspector of the National District Municipality, which will include the verification and proof of the crime and the amount of the fine to be applied according to this law.

Article

For the subjection and corresponding application of the sanction established in the law 64-00, on Environment and Natural Resources, the procedure to follow regarding such violation is the one established in the articles 177, 178, 179, 180, 171 and 182 of this law.

Article

The fines established in such legislations will be cashable by the competent municipal authority if the offender pays it voluntarily; otherwise the municipal authority will required the payment by the competent coercive and jurisdictional way, according to what is established in the valid laws.

Section II Coercive and Jurisdictional way

Article

The competent municipal authority when beginning the procedure to require the payment for the coercive and jurisdictional road, will have in consideration the following aspects:

Paragraph I. It will be considered the graveness of the fact, the physical or artificial person economic dimension that caused the damage and the offender antecedents or of the jointly liable responsible.

Paragraph II. It will be considered as circumstances that reconcile the legal accusation writing the regret of the offender that is not recurrent followed by a demonstration that the reason that produced the fact was corrected and that he collaborate with the inspection.

Paragraph III. Circumstances that increase the application of the infraction are the repetition, the economic interest and putting in risk the public health and/or the environment.

Article

In case the accusation is welcomed the ADN will take as base the valid minimum wage in the public sector in the date when the infraction was made and the amount claimed will be half (1/2) minimum wage up to three thousand (3,000) minimum wages.

Paragraph I. The amount claimed will be progressive according to the following mathematical series of minimum wages: 0.5/1/2/3/5/8/13/21/34/55/89/144/233/377/610/987/1,497/2,484/3,000.

Paragraph II. It is established that the amount claimed will be able to begin in any term of the mathematical series and not necessarily in the first one.

Paragraph III. The amount claimed will be established taking like base the initial amount that appears in the following list that is not limitative.

| Lists of Infractions and Sanctions (not limitative) | | | | |
|---|---|---|--|--|
| Article No. | Infraction | Initial amount claimed in minimum wages | | |
| | General Infractions and Sanctions | | | |
| | Whoever blocks or impede any activity of the solid waste | | | |
| | management service | Three (3) | | |
| | Whoever discharges the solid waste or debris in the coastal limits, swamps, rivers, lakes, protected areas and humidity | Twenty one (21) | | |
| | Sanctions related with the cleansing of roads and public at | reas | | |
| | Whoever deposits or pour any type of solid waste in the road or | | | |
| | public space | Three (3) | | |
| | The occupant that doesn't clean and hygienic the front of the single- | , | | |
| | family, multi-family resident or establishment | One (1) | | |
| | The responsible for the cleaning of sewers or absorption well that | | | |
| | abandons the waste in the public road | Two (2) | | |
| | The owner of the work where accumulates debris in the public road | | | |
| | outside of their respective container | One (1) | | |
| | The owner of the work that maintains after the 18:00 hours debris in | | | |
| | the public road | Two (2) | | |
| | The owner of the work that maintains construction materials in the | | | |
| | public road excepting the of load and discharge time | Two (2) | | |
| | The owner of the work that begins without having the solid waste or | | | |
| | debris management contract | Thirteen (13) | | |
| | The owner of a transport means that doesn't have a cover or lid and | TT (2) | | |
| | the cleaning instruments. | Three (3) | | |
| | Leave the waste derived of a load process or goods discharge in the | | | |
| | public road. The occupant of the property where the event has been | One (1) | | |
| | carried out will be responsible. Traveling salespersons and of fixed positions that don't dispose in | One (1) | | |
| | public containers the waste of their activities. | One (1) | | |
| | The owner of the property without building that doesn't maintain it | One (1) | | |
| | in good state of cleaning | Three (3) | | |
| | The owner of the animal that has not picked up and cleaned the | 111100 (3) | | |
| | public road where the animal has defecated | One (1) | | |
| | The owner of the vehicle abandoned in the public road | Three (3) | | |
| | The owner of the local where tires are stored without fulfilling the | | | |
| | requirements of the Fire Department. | Three (3) | | |
| | Whoever deposits in the pedestrian containers solid waste that don't | (- / | | |
| | correspond to the waste generated by the pedestrians. | One (1) | | |
| | The responsible or promoter of a public event that has not hired | ` , | | |
| | previously with the Municipality the cleaning service. | Eight (8) | | |
| | Whoever distributes in the road or public spaces pamphlets of any | ` ` ` | | |
| | nature without the permission of the Municipality. | Two (2) | | |
| Sanctions related with the storage and containers | | | | |
| | The owner of the multi-family, institutional, commercial or | | | |
| | industrial property that doesn't have a storage system or doesn't | | | |
| | fulfill the requirements of the Municipality | Eight (8) | | |
| | The owner of the property that doesn't maintain clean the | | | |

| Lists of Infractions and Sanctions (not limitative) | | | | |
|---|--|---|--|--|
| Article No. | Infraction | Initial amount claimed in minimum wages | | |
| | surroundings of the storage box located inside the boundaries of | mages | | |
| | their property. | Five (5) | | |
| | Whoever deposits in the containers of the ordinary collection wastes | (*) | | |
| | or substances that don't correspond to this type of service | Three (3) | | |
| | Whoever deposits solid waste outside, above or around a public | | | |
| | container | One (1) | | |
| | The owner of the establishment that manipulates foods and don't | , , | | |
| | have a container for organic waste | Three (3) | | |
| | Sanction related with the delivery of the solid waste | | | |
| | The owners and tenants of homes and commercial establishments | | | |
| | that take out the solid waste in hours different to the established by | | | |
| | the Municipality | One (1) | | |
| | Whoever delivers their waste in bad conditions or scattered | One (1) | | |
| | Whoever delivers their containers or bags with glass pieces or | | | |
| | another material that could cause a damage to the collector | Two (2) | | |
| | Whoever once placed the waste in the containers and in the places | | | |
| | where it should be picked up, disorganize it, glean in her, veer the | | | |
| | baskets, break the containers where have been deposited | Half (1/2) | | |

Annex AA

Coordination among Directors of ADN

Contents

| AA | Coordination among Directorates of ADN | | |
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AA Coordination among Directorates of ADN

AA.1 Objective and Goal

With the approval of the Non Hazardous Solid Waste Management Regulation, is establish the rules that will norm the relations between the National District Municipality (ADN), their citizens, clients and the lenders of the private sector hired or authorized, in the public service of the integral solid waste management and in the cleaning maintenance of the National District.

This paradigm change in the integral solid waste management will require an adjustment in the administrative and functional structure of ADN, looking for the biggest synergy among the Directorates that participate direct or indirectly in the provision of this public service with the goal of offering the best quality and the efficient use of all the resources.

AA.2 Coordination Level with other Directorates

It is establish that each Directorate will assume the responsibility that concerns them in the administrative structure that sustains the provision of the solid waste management service, assigning directly the necessary suitable personnel so it can assume the functions pointed.

For this effect, the following figure shows the functional structure that is derived of the application of the Regulation and following is the description of the general functions and specifies what concerns each Directorate in the provision of the solid waste management service.

a. Advisory Committee for the Integral Solid Waste Management

The Regulations creates the Advisory Committee for the Integral Solid Waste Management the same one that initially was constituted by 16 (sixteen) organizations that in its majority are participating in the elaboration of the Strategic Plan of Santo Domingo City.

These organizations are: Secretariat of State for Public Works and Communications; Secretariat of State for Tourism; Secretariat of State for Public Health and Social Assistance; Secretariat of State for Environment and Natural Resources; National Commission of Emergencies; Union of the Neighbors Committee of District 1; Union of the Neighbors Committee of District 2; Union of the Neighbors Committee of District 3; Union of the Neighbors Committee of the Historical Zone; Autonomous University of Santo Domingo; Dominican School of Engineers, Architects and Surveyor, National Council of the Private Company; Hotels Association of Santo Domingo; Commerce and Production Camera of Santo Domingo; Dominican Camera of the Construction; National Organization of the Commercial Companies ONEC. (Secretaría de Estado de Obras Públicas y Comunicaciones; Secretaría de Estado de Turismo; Secretaría de Estado de Salud y Asistencia Social; Secretaría de Estado de Medio Ambiente y Recursos Naturales; Comisión Nacional de Emergencias; Unión de Juntas de Vecinos de la Circunscripción No. 1; Unión de Juntas de Vecinos de la Circunscripción No. 2; Unión de Juntas de Vecinos de la Circunscripción No. 3; Unión de Juntas de Vecinos de la Ciudad Colonial; Universidad Autónoma de Santo Domingo; Colegio Dominicano de Ingenieros, Arquitectos y Agrimensores; Consejo Nacional de la Empresa Privada; Asociación de Hoteles de Santo Domingo; Cámara de Comercio y Producción de Santo Domingo; Cámara Dominicana de la Construcción; Organización Nacional de Empresas Comerciales ONEC).

a.1 General function in the solid waste management

Achieve the harmonized and structure participation of the citizenship and of their social organizations with the Municipality to reach the economic and social profitability in the integral solid waste management.

a.2 Specific function in the solid waste management

- Participate in the establishment of a politic for the integral solid waste management.
- Know about the performance of the service lenders.
- Participate in the rate structure for the provision of the service.
- Analyze and recommend the grant of the subsidy in the payment of the service for the families in poverty situations.
- Participate in the preparation of the EMUCD budget.

b. Institutional Commission of the Strategic Plan

Conduct the preparation of the Strategic Plan of Santo Domingo City

b.1 General function in the solid waste management

Incorporate the "Integrated Solid Waste Management Plan in Santo Domingo de Guzman, Nacional District, Dominican Republic" in preparation by the JICA Study Team as part of the strategic sectorial axis of the Environmental Quality Management in the Strategic Plan of Santo Domingo City.

b.2 Specific function in the solid waste management

Use the JICA study to establish the base of a politic regarding the solid waste management that solves the three fundamental challenges pointed in the sectorial diagnosis, and that they are:

- Generation of a Master Plan for the Urban Solid Waste Management, that traces the rules for an integral boarding and of long term, that respond to the necessities of establishing a service based in standards of efficiency, routes and frequency schedule, citizen education, recycle and waste classification;
- The establishment o fan effective-cost system that makes viable in financial and economic terms the solid waste management system; and.
- Developed a regional solution for the final disposition of the solid waste, administered based on the economic and environmental efficient approaches.

c. Juridical Advisory Directorate

The Juridical Advisory of ADN performs a crucial work for the daily development of the municipality. Its legal base is in the same Law 6456 about the National District Organization, the Law 5622 of September 14, 1961 about the Municipal Autonomy and the 58-88, that creates the Peace Tribunals for Municipal Matters.

c.1 General function in the solid waste management

Advisory, elaboration and/or revision of the aspect and juridical process in the institutional strengthening of the ADN associated with the integral solid waste management.

c.2 Specific function in the solid waste management

- Go to trial derivate from the application of the Non Hazardous Solid Waste Management Regulation;
- The redaction of the upgrade of the contracts and judgments about the contractual effects in the provision of the collections, sweeping and final disposal services and in the commercialization area.

- The participation in the administrative process for the creation of a municipal company for the integral solid waste management giving the convenient juridical orientations.
- Assign the personnel from the Juridical Advisory Directorate in the Urban Cleansing Department to assist their functions.

d. Human Development Directorate

Contribute with the improvement of the urban life quality promoting the generation and going into the social capital of the National District.

d.1 General function in the solid waste management:

Facilitate and achieve the citizen participation in the provision of the service of the integral solid waste management.

d.2 Specific function in the solid waste management:

- Promote the creation of a Cleansing and Ornate Committee in each of the Neighbors Committee of the Municipality.
- Program training activities for the formation and mobilization of leaders of the Cleansing and Ornate Committee in coordination with the Environmental Information Center and the Cleaning School.
- Keep a relation of narrow collaboration and coordination with the members of the Advisory Committee for the Integral Solid Waste Management.
- Evaluate periodically the community action programs to suggest corrective measures.
- Assign the personnel from the Human Development Directorate to the Customer Service Unit to attend their functions.

e. Planning and Institutional Development Directorate

The Planning and Institutional Development Directorate (PDI), has the double function of heading the modernization process of the National District Municipality and at the same time be the planning instance of the city government.

e.1 General function in the solid waste management

Guide the strengthening process of the administrative training of ADN in the integral solid waste management.

e.2 Specific function in the solid waste management

- Strengthen the institutionalism promoting the application of the Non Hazardous Solid Waste Management;
- Make the administration gain efficiency with the establishment of an harmonize action of all the dependencies in order to improve the solid waste management;
- Assign in the formulation of the annual budget the entry to attend the total amount of the subsidy that will apply to the payment of the solid waste management service for the families under the poverty line;
- Conduct the management for the creation of a municipal company of the integral solid waste management;
- Assign the personnel from the Planning and Institutional Development Directorate in the Administrative and Development Unit.

f. Quality Management Directorate

The Quality Management Directorate is in charge of standardizing the processes, technical and administrative procedures tending to improve the municipal management.

f.1 General function in the solid waste management

Establish and keep the evaluation and quality control system of the integral solid waste management service.

f.2 Specific function in the solid waste management

- Select and use the management indicators in the inspection of the quality control in the provision of the service direct or hire.
- Detail the personnel of the Directorate in the pertinent functions of the Customer Service Unit.
- The participation in the administrative process for the creation of a municipal company for the integral solid waste management giving the convenient juridical orientations.
- Assign the personnel of the Quality Management Directorate to the Customer Service Unit to attend their functions.
- Assign the personnel from the Quality Management Directorate to the Quality Control and Contract Administration Unit to attend their functions.

g. Audit Directorate

The audit is the objective, systematic and professional test of the financial and/or administrative operations, made with posteriority to its fulfillment, in the different units. It must be carried out according to the Internal Norms of Government Audits and specialized dispositions emitted by the General Controllership of the Republic, applying the techniques, methods and procedures established by the public accountant profession.

g.1 General function in the solid waste management

Inspect the financial and administrative operations associated to the lenders of the solid waste management services, considering what is disposed in the Non hazardous Solid Waste management Regulation, in other regulation applicable, in the contract subscribed by the private sector, the internal norms of the government audit and the specialized disposition of the General Controllership of the Republic.

g.2 Specific function in the solid waste management

- Prepare the politics, guidelines and the establishment of appropriate dispositions and mechanisms to inspect and register the activities of countable control and service quality of the solid waste management.
- The control and inspection of the provision of the public services of the solid waste management administrated by the recruiting regimen.
- Verify that the total cost registered as expenditure for the provision of the service has counted all the expenditures incurred by the EMUCD and by other dependencies of the Municipality.
- Audit the real cost registered before been send in knowledge of the Major and later on to the Municipal Council with the rate regimen for the next year.
- Assign the personal from the Audit Directorate to the Quality Control and Contract Administration Unit to attend their functions.
- Assign the personal from the Audit Directorate to the Accountancy, Cost and System Unit to attend their functions.

h. Technology and Information Directorate

Has the function of administrate and develop the technological platform of the Municipality, as well as the development of the appropriate computer systems to the prosecution necessities and information analysis.

h.1 General function in the solid waste management

Give technical support to the different administrative units that participate in the solid waste management.

h.2 Specific function in the solid waste management

- Develop and implement the computer systems that facilitate the provision of the service;
- Offer the technical support of the system maintenance
- Administrate the phone nets of the neighbor attention panels

i. Financial Directorate

Program and assign the resources for the budgetary performance of the Municipality.

i.1 General function in the solid waste management

Assure the correct registration of the financial movements, establish the real cost of the service and the allocation of the financial resources for the provision of the solid waste management service.

i.2 Specific function in the solid waste management

- Guide the registration of the use of the resources toward a real cost accounting system that allows comparing them with the cost goals established.
- Determine the real cost of the service that will include the real and total expenditures in which all the Municipality dependencies incurred.
- Verify that the rate that each client has to pay will be determined by the real cost of the service provided.
- Assure that the financial area of the Municipality will proposed to the Major the study of the real cost of the service indicating the respective rates in March of each year.
- Verify that the Municipal Council knows the sheet of rates for the next period within the three months previous to the expiration of the valid rates.
- Notice that the rates will have a validity of twelve months between August 1st and July 1st of each year.
- Assure that the Municipality will use the necessary funds to take care of the partial
 payments of the invoice for the solid waste management service of the families
 identified under the poverty line.
- Elaboration of the financial, economic, statistical statements and others in real time.
- Assign the personnel from the Financial Directorate to the Accountancy, Costs and System Unit to attend their functions.

j. Urban Planning Directorate

The Urban Planning Directorate is in charge of the classification and control of the National District territory through the urban planning, that now gains a singular importance due to the

nature of the urban center that tends toward the territory densification.

j.1 General function in the solid waste management

Incorporate in the urban planning process the requirement of the integral solid waste management.

j.2 Specific function in the solid waste management

- Consider in the regulators plans and in the zoning, edification, public spaces and viability normative regulations the norm included in the Non Hazardous Solid Waste Management Regulation.
- Contemplate the requirements of the solid waste collection, sweeping and transport services in the regulation for the vehicular traffic in the metropolitan zone.
- Assign the personnel from the Urban Planning Directorate to the Planning and Engineering Unit to attend their functions.

k. Human Resources Directorate

Formulate and administrate the human resources politics of ADN promoting the strengthening of the aptitude, experience and personal motivation.

k.1 General function in the solid waste management

Strengthen the personnel aptitude of the solid waste management through the application of the measures guided to improve the performance, protect the health and keep the best labor climate.

k.2 Specific function in the solid waste management

- Supervise the recruiting of the suitable personnel through the corresponding evaluations.
- Guide training programs through the Cleaning School.
- Keep an occupational health program.
- Make sure that the personnel adopt the security measures and use the personal protection equipment.
- Verify that all the personnel are totally covered by the corresponding insurance.
- Assign the personnel from the Human Resources Directorate to the Human Resources Unit to attend their functions.

I. Equipment and Transport Directorate

Has a basic mission, serve as support in equipment and transport matters to the ADN dependencies that requires it. Also among their functions, are the storage, maintenance and reparation of the heavy and light equipments and supply the fuel.

1.1 General function in the solid waste management

Achieve the higher level of use of the vehicles assigned to the solid waste management service.

1.2 Specific function in the solid waste management

• Vehicles maintenance: storage, cleaning, conservation, parts, accessories, fuel, lubricants.

- Administrate and supervise the workshop labor that carry out maintenance and reparation works.
- Look after the observation of the viable security and transport norms by the functionaries and staff that provide the service.
- Keep the statistic elaboration systems of costs and reparation and maintenance expenditure of the vehicular fleet.
- Assign the personnel of the Equipment and Transport Directorate to the Equipment and Transport Unit to attend their functions.

m. Environmental Management and Urban Cleaning Directorate and its Dependencies

The Environmental Management and Urban Cleaning Directorate is developing the most visible and traditional activity of all the ones executed by the government of the city: cleanliness maintenance and cleaning of the city. The legal base of this service is the Law 3456 on organizations of the National District and the Law 64-00 on Environment and Natural Resources, instrument in which is defined the irremediable municipal responsibility regarding cleanliness.

m.1 General function in the solid waste management

The EMUCD will manage the integral solid waste management generated in the National District.

m.2 Specific function in the solid waste management

- Plan, organize, conduct and control the activities of the Directorate to guarantee the cleaning and urban cleanliness of the National District.
- Design and conduct the sweeping, collection and final disposal works of the solid waste and verify that they are deposit in appropriate places that does not affect the environment.
- Apply the appraisement principles, the shared responsibility and the integral solid waste management under the environmental, technological, economic and social efficiency approaches.
- Provide the solid waste management service performing the dispositions established in the Regulation.
- Maximize the use of the resources available by the Municipality using the best approaches of effectiveness and efficiency in providing the service.
- Inspect and administrate the service contracts that we have with the private sector.

n. Environmental Information Center

Conduct the program of citizen awareness regarding the Municipal Environmental Protection, the active participation in the environmental management and of the measures to adopt in case of disasters.

n.1 General function in the solid waste management

Conduct the process of the establishment of a culture to prevent the generation, appraisement and integral solid waste management.

n.2 Specific function in the solid waste management

- Formulate the politics, plans, programs and information and environmental education activities associated with the solid waste management.
- Keep an information and continuous training program directed to the municipal functionaries and organization representatives that constitute the social capital of the National District and the general citizenship.
- Implement a permanent action line of environmental education guided to encourage the citizen participation in an appropriate solid waste management.
- Promote and keep an educational program that motivates the public participation in the effective reduction of the generation of solid waste in the National District.
- Establish programs to organize, motivate and advise the persons that in an informal way are dedicated to the separation and commercialization of the useful materials contents in the solid waste.
- Carry out the storage and the exchange of information and related documents and create the conditions that facilitate the access to them.
- Offer the environmental information service through the diffusion of information regarding the environment and natural resources as a form of preventing possible damages to the environment, property and health derivate from an inadequate solid waste management.

o. Department of Ornament and Public Embellishment

Have the following main attributions:

- Coordinate and inspect the fulfillment of the plans, programs and activities related with the ornament and municipal embellishment.
- Participate in the planning and programming of the plans, programs, projects and the activities of the EMUCD.
- Support the execution of the plans, educational activities and citizen awareness on public ornament, embellishment and use of green areas.

p. Department of the Environmental Quality and Contamination Prevention

Have the following main attributions:

- Improve the environmental quality of the inhabitants of the ND.
- Formulate the norms and parameters proposal of the municipal environment quality.
- Implement a municipal environmental evaluation system.
- In coordination with the corresponding instance formulate and execute the educational plans and citizen awareness on the environmental quality improvements.

q. Department of Prevention and Reduction of the Vulnerability

Have the following main attributions:

- Prevent the damages caused by natural and anthropogenic events, as well as the reduction of vulnerability.
- Formulate an Emergency Municipal Plan.
- Coordinate the activities and actions identified in the Emergency Municipal Plan with the other agencies and national specialized institutions.

- Propose a municipal education program on risk prevention and the management in presence of an emergency or natural or anthropogenic disaster.
- Evaluate the damages caused by disaster situations, as well as recommend and guide the necessary actions.

r. Urban Cleansing Department

r.1 Coordination at the Directorate level

• With the whole personnel assigned by the different Directorate participants.

r.2 General functions

• Conduct the provision of the integral solid waste management in the whole National District territory.

r.3 Specific functions

- Provide the collection, transport, sweeping, transference, treatment and final disposal services of the non hazardous waste, under conditions that assure the quality, continuity and regularity, so that they can result efficient for their clients, as well as for the public health, environmental and natural resources preservation, the aesthetic and cleaning of the National District.
- Inspect all the activities and the performance of the provision of the service hired with thirds and those borrowed directly.
- Register all the expenditures derivate from the provision of the service appropriately.
- Plan with a medium and long term vision the full satisfaction of the service necessities of the city coordinating in an effective way with the Urban Planning Directorate.
- Incorporate the appropriate technology under the benefit/cost considerations to assure
 the continuous improvement and the sustainability, efficiency and service quality in a
 long term.
- Permanently evaluate the frequencies, routes and schedules that better serves the clients and design the products that are necessary to satisfy their necessities.
- Create and keep the best labor climate and protect the physical integrity and the workers health.
- Keep a permanent communication with the clients through the different means.
- Coordinate with the competent authorities the hazardous solid waste management generated in the health establishments.
- Inform the Director about the performance of the programs and activities carried out by the department evaluating the results and proposing measures to improve the quality.

s. Customer Service Unit

s.1 Coordination at the Directorate level

- Human Development Directorate
- Quality Management Directorate

s.2 General functions

Promote and keep the active participation and collaboration of the clients and keep their satisfaction for the quality of the service.

s.3 Specific functions

- Guarantee the social capital participation and of the inhabitants of the National District in the integral solid waste management.
- Coordinate the activities with the company in charge of the commercial management of the cleaning service to gain synergy in the customer service.
- Facilitate and reinforce the Neighbor Committee action and promote the creation of a Cleaning and Ornament Committee in each one.
- Support the Cleaning and Ornament Committee in the performance of the following responsibilities:
 - Observe and make fulfill the Regulation
 - Verify the fulfillment of the quality of the service provided.
 - Present the claim for the deficiencies that can be presented in the quality of the service and demand the pertinent corrections.
 - Verify that the neighbor fulfill with the requirement of the delivery of the solid waste.
 - o Demand that the neighbors have the front of their house clean.
 - o Promote the opportune payment of the invoice for the service provided.
 - Organize jointly with the Municipality the activities necessaries to achieve the permanent improvement of the quality of the service.
 - o Participate in the organization of the environmental educational programs.
- Strengthen the relation with the clients maintaining a phone panel with a free line to attend the claims and inform the performance of the service.
- Make effective the following rights and obligations of the clients:
- Client rights:
 - O Demand from the Municipality the efficiency of the provision of the service according to the quality levels established.
 - O Claim to the Municipality when is proven that the qualitative and quantitative goals fixed are not fulfilled.
 - Receive truthful and opportune information and the appropriate orientation about the services provided, in a very detailed form to exercise their client right.
 - O Be informed with enough time about the changes in the frequency and collection schedule.
 - Request the Municipality that make of public knowledge the rate regimen approved with enough advance.
 - O Claim to the Municipality when alteration made in the billing not coincides with the rate regimen approved.
 - Receive the invoice with enough time before its expiration; the Municipality or the collector agent, will remit them in the appropriate time and by the best mean.
 - O Be assisted in the least possible term by the Municipality on consultations and claims formulated.
- Obligations of the client:
 - Fulfill with the obligations established in the present Regulation regarding the storage, containers and the delivery of the solid waste to the collection service.
 - o Collaborate with the Municipality in the clearing maintenance of the District.
 - O Pay the invoice of the service before its expiration date, according to the dispositions of the rate regimen.

t. Administration and Development Unit

t.1 Coordination at the Directorate level

• Planning and Institutional Development Directorate

t.2 General functions

Provide the administrative and control support to the operative units through the administrative sections that will manage the personnel assigned by the Directorates.

t.3 Specific functions

- Inspect all the activities and the performance of the service provided hired with thirds and those borrowed directly.
- Register all the expenditures derivate from the service provided appropriately.
- Plan with a medium and long term vision the full satisfaction of the service necessities of the city coordinating in an effective way with the Urban Planning Directorate.
- Incorporate the appropriate technology under the benefit/cost considerations to assure
 the continuous improvement and the sustainability, efficiency and service quality in a
 long term.
- Permanently evaluate the frequencies, routes and schedules that better serves the clients and design the products that are necessary to satisfy their necessities.
- Create and keep the best labor climate and protect the physical integrity and the workers health.
- Keep a permanent communication with the clients through the different means.
- Coordinate with the competent authorities the hazardous solid waste management generated in the health establishments.

u. Quality Control and Contracts Administration

u.1 Coordination at the Directorate level

- Ouality Management Directorate
- Audit Directorate

u.2 General functions

Control and evaluate that the service should be provided according to the quality levels established in the regulation and in the contracts with thirds.

u.3 Specific functions

- Control the quality of the service through the use of indicators previously established for each activity.
- Use the values obtained for the decision makers and the continuous improvement.
- Keep the appropriate registers of the service provided and carry out a control and analysis program whose scope and frequency must be enough to establish if the collection services, public areas cleanliness, transference and final disposal, are operating according to the dispositions of the Regulation and the technical norms and corresponding qualities.
- Facilitate to the citizens the free, total and opportune access to the information derivate from the service provided.
- Assure that in case of hiring thirds for the provision of one or several stages of the service, the Municipality will establish the administrative mechanism necessaries to guarantee the three main conditions:
 - a) A clear definition of the type and scope of the services hired;
 - b) A previous analysis of the offers selecting the most economical and technical viable; and,
 - c) The control of the fulfillment of the contracts.

- Assure that in the case of hiring third the following aspects will be included:
 - a) Guarantee the quality of the service to the whole population.
 - b) Provide efficientely the service without interruptions.
 - c) Obtain verifiable scale economies in the final disposal phase.
 - d) Gurantee the competition freedom and avoid abuses due to a dominant position.
 - e) Establish mechanisms that gurantee to the users the access to the service and their participation in the management and inspection of the provision.

v. Accountancy, Costs y Systems

v.1 Coordination at the Directorate level

- Technology and Information Directorate
- Financial Directorate

v.2 General functions

Assure the correct registration of the financial movements, establish the real cost of the service and the provision of the financial resources for solid waste management service.

v.3 Specific functions

- Guide the registration of the use of the resources toward an accountancy system of real costs that allows compare the costs goals established.
- Select the management indicators that will be used to measure the performance.
- Compare the results of the performance of the service provided with the goals.
- Evaluate the results and propose the corrections and adjustments necessaries to reach the goals established.
- Assure that the operative units have the necessary resources in their opportunity, quantity and quality requested.

w. Planning and Engineering

w.1 Coordination at the Directorate level

• Urban Planning Directorate

w.2 General functions

Program the activities of the service provided according to the development necessities, to the urban planning of the city and to the generation and features of the solid waste.

w.3 Specific functions

- Implementation of the Master Plan of JICA.
- Routine characterization of the solid waste generated.
- Determination of the solid waste to the medium and long term.
- Design and execution program of the adjustment in the collection models, public areas cleanliness, transport, transfer, treatment and final disposal.
- Design and programming of the frequencies, collection hours and sweeping.
- Design and execution of the solid waste minimization programs.
- Design and application of the economic instruments guided to encourage the minimization in the productive sector.
- Develop programs to reuse and recycle the waste.

x. Human Recourses

x.1 Coordination at the Directorate level

Human Resources Directorate

x.2 General functions

• Protect the physical integrity and the health of the worker, through the permanent training and by supplying the personal protection equipment.

x.3 Specific functions

- Prepare and upgrade the labor risk manual.
- Establish a routinely program of continuous training for the operators of the service guide to prevent the labor accidents.
- Continually train the supervisors of the quality control and prevention of labor accidents.
- Assure the endowment of the personal protection equipments and uniforms.
- Verify the preventive maintenance of the collection vehicles to avoid accidents.
- Instruct the operators that they will only collect the containers that adjust to the features of dimensions and weight established.
- Facilitate the routinely medical control.
- Assure the maintenance of an insurance policy of medical assistance and of professional risks.
- Provide the personnel of a wardrobe local and of shower where to be cleaned and change the cloth after having concluded the work day.
- Coordinate with the Cleaning School the continuous training programs guided to control the labor accidents and the professional illnesses of the workers and conduct a literacy program.

y. Hospital Waste Unit

y.1 General functions

Contribute with the health and environment improvements of the National District citizens through the reduction of risks by hazardous waste generated in the health establishments.

y.2 Specific functions

- Verify that in their environment, the hazardous waste generated by the health establishments do not affect the citizens health, as well as the National District environment.
- Verify the fulfillment of the legal dispositions established on the DPES management.
- Contribute with the sanitary educational programs for the National District population on the danger of the DPES.
- Verify the implementation of the strategies related to the prevention, surveillance, monitoring and control of the DPES.
- Promote, support, foment, establish and keep coordination with the public and private institutions and agencies of external cooperation that develop activities guided to reduce the risks if the DPES.
- Propitiate the exchange of information with public and private organizations of the country or from foreign dedicated to the development of programs for the DPES management.

Annex BB

Divisions of Duties of the Urban Cleansing Department

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BB Divisions of Duties of the Urban Cleansing Department

BB.1 Operation and Inspection Unit

Structure

This Unit is in charge of integrating the ordinary, marginal and special residential collection services, ICIs, cleaning of public areas, transfer, vehicles and equipments maintenance, and inspection of all the services, been these carried out by the Municipality or Private Companies.

Create a bigger synergy in the operations, improve the integral quality of the cleaning, reduce the total costs, and create a positive organizational climate.

Headquarters: Necessarily a professional of the engineering with experience in the conduction of solid waste management service should be in charge.

Sections of: Transfer Service; Cleaning of Public Areas; Marginal Areas Management; Equipment and Maintenance; Ordinary Residential service; Special Residential service; Institutions, Trade and Industry Services.

Responsibilities

Supply an integrated service that the Municipality or the private operators provide to their clients and to the National District community.

Tasks

Headquarters

- 1. Guarantee that the services provided are carried out efficiently with the procedures of an efficient model company: sweeping and cleaning of the roads and public areas, ordinary collection, special ICIs collection, transfer and maintenance.
- 2. Guarantee the permanent and correct inspection of the services and contracts.
- 3. Plan, assign and coordinate the works of the Unit.
- 4. Maintain the coordination and complementation that should exist in the sections of the Unit to provide the services.
- 5. Elaborate the management indicators and the Unit Memories.
- 6. Verify and evaluate the management performance of each section and prepare the indicators.
- 7. Veil for an appropriate waste classification to establish the collection types.
- 8. Control the quality and the use of resources of the services provided.
- 9. Project annually the necessities of the human resources (drivers, collectors, mechanics, and supervisors) and materials (vehicles, pieces and parts, fuels, lubricant, tires, etc.) and appropriately show them to the Urban Cleansing Department.
- 10. Guarantee that the final disposition activities are carried out efficiently.
- 11. Coordinate with the Urban Cleansing Department the amplification and improvement of the covering and quality of the services.
- 12. Inform to the Urban Cleansing Department of the execution of programs and activities carried out by the Unit, evaluating the results and proposing measures for

the services improvement.

- 13. Pursuit the projects in progress.
- 14. Evaluate the personnel and recommend training courses for them.
- 15. Look after an appropriate attention to the citizenship.
- 16. Send the data of the application from the special residential service to the Customer Service Unit for the respective quotation.
- 17. With the order of the Customer Service Unit inform the Special Residential Service that they can proceed providing the service.
- 18. Communicate to the Customer Service Unit the provision of the special residential service.
- 19. Elaborate technical reports for the approval or rejection of the License for operators of ICIs service.
- 20. Verify the execution of what is indicated in the Operation License for operators of ICIs service.
- 21. Keep an authorized cadastre of the operators authorized to make the ICIs service.
- 22. Keep a cadastre of the users subscribed to the ICIs service and inform monthly to the Customer Service Unit.
- 23. Inform monthly to the Customer Service Unit the quantity of waste collected by each ICIs operator and user.
- 24. Inform daily to the Urban Cleansing Department Manager of the private operators that have not fulfilled the terms of the contracts, identifying the lacks and sanctions that should be applied.
- 25. Assure the execution of the objectives and goals of the entity.

Supervision Responsibilities

- 1. Receive general supervision of the Urban Cleansing Department Manager.
- 2. Supervise the managers of the Unit Section.

Internal Relations

With the Urban Cleansing Department; with the Administration and Development Unit, headquarters of the sections.

BB.2 Inspection Section

Structure

This section is in charge of investigating the operations and execution of the contract of the ordinary, marginal and special residential collection services, ICIs collection, cleaning of public areas, transfer service, vehicles and equipments maintenance.

Responsibilities

This section is in charge of investigating all the services of the Operations and Inspection Unit, been this executed directly by the Municipality or through private operators.

Tasks

Headquarters

- 1. Verify the execution of the designs of the ordinary, marginal and special residential collection services, ICIs collection, cleaning of public areas, transfer service as for routes, frequencies, schedules and days of attention, used resources, mechanical conditions of the vehicles and equipments, uniforms, protection equipments and presence of the workers.
- 2. Verify the execution of the quality indicators established for each service and indicated in the contracts.
- 3. Verify the execution of the terms of the contracts as for the technical characteristics and of the service operation.
- 4. Verify that each collection vehicle carries the corresponding route sheet.
- 5. Verify daily the exit of the collection vehicles indicated in each contract.
- 6. Inform to the section managers: Ordinary Residential service, Special Residential Service, ICIs Service, Cleaning in Public Areas when the private operator doesn't have all the vehicles assigned for the restructuring of the daily service.
- 7. Indicate in the route sheet their inspection and in the case of existing the non-fulfillment of the quality of the service or of the contract terms for the tickets application.
- 8. Elaborate and send daily a report of the services inspection to the Operations and Inspection Unit Manager, informing about the execution of the quality of the services and of the contracts, identifying the operators in non-fulfillment, the lack reasons and the sanctions that should be applied according to the contract.
- 9. Investigate the sweeping service, verifying the routes execution and the cleaning levels, the total of operative personal.
- 10. Verify daily that 100% of the wastes discharged in the Transfer Station are led to the final disposal site.
- 11. Verify the correct operation of the transfer station, the correct control of the entrance and exit registration of waste and the correct state of the facilities, vehicles and equipments.
- 12. Verify the correct use of the human and physical resources and that it is adjusted to what is indicated in the different contracts.
- 13. Verify the rise of 100% of the waste assigned to each contract.
- 14. Verify the sweeping of 100% of the streets or avenues according to the design.
- 15. Keep a daily registration of the waste managed by service and operator.

Supervision Responsibilities

- 1. Receive general supervision of the Operation and Inspection Unit Manager.
- 2. Supervise the Inspection personnel.

Internal Relations

Transfer Service, Cleaning in Public Areas, Marginal Areas management, Equipments and Maintenance, Ordinary Residential Service, Special Residential Service, ICIs Service.

BB.3 Transfer Section

Structure

This section is in charge of operating the current transfer station located in the District III and supervise the transport works of waste transferred to the final disposal site.

Responsibilities

Operate the transfer station.

Tasks

Headquarters

- 1. Conduct the presentation of the transfer services.
- 2. Maintain the coordination that should exist in the operations of the sections with the Unit.
- 3. Maintain the operative coordination with the Inspection Units, Ordinary residential Collection and Marginal Areas Management, and Equipment and Maintenance.
- 4. Control the performance of the operations according to the indicators established.
- 5. Supervise the faithful execution of the contracts with private operators.
- 6. Keep a control of the entrance and exit of the transfer waste, keep the corresponding registrations.
- 7. Fulfill the activities of the transfer project.
- 8. Verify the quality of the services and the use of resources.
- 9. Support the Operations and Inspection Unit Manager in the calculations of the annual projection of the necessities of the human and physical resources that the Transfer station requires.
- 10. Veil for that the waste discharged in the Transfer Station fulfill with the technical specifications defined by the Planning and Engineering Unit.
- 11. Evaluate the personnel under their responsibility.
- 12. Inform daily of the activities development of the Operations and Inspection Unit.

Supervision Responsibilities

- 1. Receive general supervision of the Operation and Inspection Unit Manager.
- 2. Supervise the administrative and operation personnel of the Transfer Station.

Internal Relations

Operations and Inspection Unit, Ordinary residential Collection, Marginal Areas management, and Equipment and Maintenance.

BB.4 Cleaning Section of Public Areas

Structure

Headquarters of the Sweeping and Manual Cleaning section, Special Services of Cleaning Hired.

Responsibilities

Maintenance of the cleaning of roads and public areas.

Tasks

Headquarters

- 1. Conduct the sweeping services and manual cleaning provided and the special cleaning services hired.
- 2. Maintain the complementation that should exist in the operations sections of the Unit.
- 3. Coordinate the installation of the pedestrian paper baskets considered in the Urban Furniture program.
- 4. Maintain the operative coordination with the inspection sections, Ordinary Residential Service, Special Residential Service, ICIs Service, and Customer Service Unit.
- 5. Control the performance of the operations according to the indicators established.
- 6. Evaluate the sweeping routes and verify the quality of the service.
- 7. Evaluate the personnel under their responsibility.
- 8. Inform daily of the activities development of the Operations and Inspection Unit.
- 9. Support the Operations and Inspection Unit Manager in the calculations of the annual projection of the necessities of the human and physical resources that the Sweeping Service requires.
- 10. Coordinate the activities with the private operators of the Special Cleaning Services.
- 11. Assist the cleaning services hired with the entity for the special events and public shows.
- 12. Verify that the personnel have their uniforms, materials (bags, brooms), tools, protection equipment.
- 13. Coordinate the transport for the sweeping personnel to the different routes.
- 14. Coordinate and verify the correct execution of the sweeping waste collection contract.
- 15. Control the use of resources; keep the registration of the entire Km. swept and the quantity of sweeping waste collected.

Supervision Responsibilities

- 1. Receive general supervision of the Boss of the Operation and Inspection Unit Manager.
- 2. Supervise the sweeping personnel and private operators of the sweeping waste collection.

Internal Relations

Operation and Inspection Unit, Ordinary Residential Collection and Marginal Areas management.

BB.5 Marginal Areas Management

Structure

This section is in charge of offering technical, administrative and accountant support to the micro-companies or foundations, in order to facilitate and assure their operations and sustainability, at the same time it should constantly support this micro-companies or foundations with training programs, education and community participation for the personnel.

Responsibilities

Waste collection and transport of marginal areas, support the micro-companies or foundations.

Tasks

Headquarters

- 1. Coordinate and supervise the collection services provided in marginal areas executed by the micro-companies or foundations.
- 2. Maintain the complementation that should exist in the operations sections of the Unit.
- 3. Maintain the operative coordination with the Inspection, Sweeping and Cleaning sections, Ordinary Residential Collection, Special Residential Collection, and transfer.
- 4. Control the performance of the operations according to the indicators established.
- 5. Verify the quality of the service provided by each micro-company or foundation.
- 6. Evaluate the collection routes.
- 7. Prepare and diffuse jointly with the micro-companies or foundations diffusion programs of the services, community participation and environmental education.
- 8. Constantly qualify through courses the micro-companies or foundations personnel in aspects related with the services development.
- 9. Provide technical, administrative and accountant support to the micro-companies; strengthen their administration capacity through training courses.
- 10. Verify the execution of the contracts with micro-companies or foundations.
- 11. Verify the execution of the collection frequency, days and schedules, as well as the cleaning levels.
- 12. Verify daily the availability of collection vehicles offered by each private operator.
- 13. Verify that the personnel that carry out the service have uniforms, protection equipments and good presence.
- 14. Verify the correct mechanical state and cleaning of the collection vehicles of the private companies, as well as having the cleaning tools.
- 15. Make the pursuit of the routes; evaluate the control points and the prospective quality indicators.
- 16. Elaborate and coordinate with the private operators the collection programs for special situations.
- 17. Evaluate the personnel under their responsibility.

- 18. Evaluate the service design of the marginal areas and propose improvements to achieve the efficiency.
- 19. Inform daily of the activities development to the Operations and Inspection Unit.
- 20. Support the Operations and Inspection Unit Manager in the calculations of the annual projection of the necessities of the human and physical resources that the works of the section requires to be fulfilled.

Supervision Responsibilities

- 1. Receive general supervision of the Operation and Inspection Unit Manager.
- 2. Supervise the personnel under their responsibility.

BB.6 Equipment and Maintenance

Structure

Headquarters; Equipment and Maintenance Section

Responsibilities

Assure the availability of the collection vehicles and support team.

Tasks

Headquarter

- 1. Program the works according to the necessities of the sections of Special Residential Service and Marginal Areas Management.
- 2. Conduct and control the programmed works.
- 3. Maintain the operative coordination with the sections of Inspection, Collection, Cleaning in Public Areas and Transfer.
- 4. Control the use of the equipments, materials, pieces, parts, tires, fuels and lubricant.
- 5. Give the preventive maintenance to the vehicles according to the program recommended by the manufacturer and the procedures established. (Lubrication, grease, lights, breaks, direction, suspension, tires, electricity, hydraulic system, etc.).
- 6. Conserve the vehicles under the best operation conditions and presentation.
- 7. Request and make sure of having the appropriately means to fulfill their tasks.
- 8. Verify the damages reported by the drivers.
- 9. Make the repairs of the mechanical damages.
- 10. Make up pieces in lathe, rectifications, welding, electricity, repair and change of tires, load of batteries, grease, straightened, painting.
- 11. Construction of containers for the storage of the solid waste and other elements for the collection, sweeping and cleaning.
- 12. Inform daily of the activities development to the Operations and Inspection Unit.
- 13. Support the Operations and Inspection Unit Manager in the calculations of the annual projection of the necessities of the human and physical resources that the Sweeping Service requires.

- 14. Evaluate the personnel under their responsibility.
- 15. Keep a registration of maintenance program executed monthly, used inputs and working hours carried out by vehicle.

Supervision Responsibilities

- 1. Receive general supervision of the Operation and Inspection Unit Manager.
- 2. Supervise the Equipment and Maintenance personnel.

Internal Relations

Operations and Inspection Unit, Ordinary Residential Collection and Marginal Areas Management, Transfer Service.

BB.7 Ordinary Residential Service

Structure

Headquarters; Ordinary Collection sections by Service Contract.

Responsibilities

Collection and transport of the Solid waste.

Tasks

Headquarters

- 1. Coordinate and supervise the ordinary collection services provided executed by the Private Companies.
- 2. Coordinate the immediate attention of the complaints presented through the Customer Service Unit and verify their solutions.
- 3. Maintain the complementation that should exist in the operations sections of the Unit.
- 4. Maintain the operative coordination with the sections of Inspection, Sweeping and Cleaning, Marginal Areas Collection, Special Residential, ICIs Service, Transfer and Customer Service Unit.
- 5. Control the performance of the operations according to the indicators established.
- 6. Verify the quality of the service provided by each private operator.
- 7. Register and inform to the Operations and Inspection Unit Manager of the new users or constructions so the routes can be upgraded or redraw.
- 8. Evaluate the collection routes.
- 9. Verify the execution of the collection frequency, days and schedules, as well as the cleaning levels.
- 10. Verify daily the availability of collection vehicles offered by each private operator.
- 11. Verify that the personnel that carry out the service have uniforms, protection equipments and good presence.
- 12. Verify the correct mechanical state and cleaning of the collection vehicles of the private companies, as well as the cleaning tools.
- 13. Make the pursuit of the routes; evaluate the control points and the prospective quality

indicators.

- 14. Maintain a constant communication with the users.
- 15. Verify the volumes of the users' generation.
- 16. Elaborate and coordinate with the private operators the collection programs for special situations.
- 17. Evaluate the personnel under their responsibility.
- 18. Inform daily of the activities development to the Operations and Inspection Unit.
- 19. Support the Operations and Inspection Unit Manager in the calculations of the annual projection of the necessities of the human and physical resources required to make the works of the section.

Supervision Responsibilities

- 1. Receive general supervision of the Operation and Inspection Unit Manager.
- 2. Supervise the personnel under their responsibility.

Internal Relations

Operation and Inspection Unit, Sections of Inspection, Marginal Area Management ICIs Service, Transfer Service.

BB.8 Special Residential Service

Structure

Headquarter; Pruning Waste Collection Area, Market Waste, Debris and Voluminous.

Responsibilities

Collection and transport of the special waste.

Tasks

Headquarters

- 1. Coordinate and supervise the collection services provided of special waste executed by the Private Companies.
- 2. Coordinate the immediate attention of the services through the Customer Service Unit and verify their correct execution.
- 3. Provide to the residential clients a special service that requires the solid waste management that doesn't apply in the ordinary residential service.
- 4. Send the data of the application from the residential special service to the Operations and Inspection Unit for the respective quotation.
- 5. With the order of the Operations and Inspection Unit proceed to provide the service.
- 6. Supervise the works and the quality of the service provided.
- 7. Communicate to the Operations and Inspection Unit the provision of the service.
- 8. Assist and solve the complaints of the deficiencies in the special waste collection service presented through the Customer Service Unit.
- 9. Coordinate their operative activities with the sections of ordinary residential

collection and marginal areas management.

- 10. Maintain a strait contact with the Customer Service Unit.
- 11. Maintain the complementation that should exist in the operations sections of the Unit.
- 12. Maintain the operative coordination with the sections of Inspection, Sweeping and Cleaning, Marginal Area Collection, Special Residential, ICIs Service, Transfer and Customer Service Unit.
- 13. Verify the execution of the clauses of the contracts.
- 14. Control the performance of the operations according to the indicators established.
- 15. Verify the quality of the service provided by each private operator.
- 16. Inform to the Operations and Inspection Unit the quantity of waste collected by special services, identifying the users for their later collection.
- 17. Maintain a constant communication with the users of the services.
- 18. Elaborate and coordinate with the private operators a collection programs for special situations.
- 19. Evaluate the personnel under their responsibility.
- 20. Control the waste collected by operator and by type of waste.
- 21. Inform daily of the activities development to the Operations and Inspection Unit.
- 22. Support the Operations and Inspection Unit Manager in the calculations of the annual projection of the necessities of the human and physical resources required to make the works of the section.

Pruning Waste Collection Areas

- 1. Elaborate and coordinate with the private operators' collection programs of remains of pruning according to the application sent by the Operations and Inspection Unit.
- 2. Elaborate and coordinate with the private operators' collection programs for special situations.
- 3. Detect in opportune form the presence of remains of pruning in the public roads, request the service to the private operators and verify the correct rise of the waste and collection by the users.
- 4. Detect in opportune form the presence of remains of pruning in front of housings; contact the user so they can request the provision of the service.
- 5. Verify daily the availability of collection vehicles offered by each private operator.
- 6. Verify that the personnel that carry out the service have uniforms, protection equipments and good presence.
- 7. Verify the correct mechanical state and cleaning of the collection vehicles of the private companies, as well as the cleaning tools.
- 8. Keep a registration of the waste collected, and of the users that request the service.
- 9. Verify the quality of the service and execution of the contracts terms.

Debris and Voluminous Collection Area

- 1. Elaborate and coordinate with the private operators' collection programs of remains of debris and voluminous waste.
- 2. Elaborate and coordinate with the private operators' collection programs for special situations.
- 3. Detect in opportune form the presence of remains of debris or voluminous in the public roads, request the service to the private operators and verify the correct rise of the waste and collection by the users.
- 4. Detect in opportune form the presence of remains of debris or voluminous in front of housings, contact the user so they can request the provision of the service.
- 5. Verify daily the availability of the collection vehicles offered by each private operator.
- 6. Verify that the personnel that carry out the service have uniforms, protection equipments and good presence.
- 7. Verify the correct mechanical state and cleaning of the collection vehicles of the private companies, as well as the cleaning tools.
- 8. Keep a registration of the waste collected, and of the users that request the service.
- 9. Verify the quality of the service and execution of the contracts terms.

Market Waste Collection Area

- 1. Elaborate and coordinate with the private operators' collection programs of market waste.
- 2. Elaborate and coordinate with the private operators' installation, rise and laundry programs of containers by lessee and market.
- 3. Verify the correct capacity of the containers installed.
- 4. Coordinate with the private operators the fumigation and laundry of the facilities and storage equipments in each market.
- 5. Verify daily the availability of the collection vehicles offered by each private operator.
- 6. Verify that the personnel that carry out the service have uniforms, protection equipments and good presence.
- 7. Verify the correct mechanical state and cleaning of the collection vehicles of the private companies, as well as the cleaning tools.
- 8. Keep a registration of the waste collected by market.
- 9. Verify the quality of the service and execution of the contracts terms.
- 10. Evaluate the appropriate design of the service and execution of the quality indicators.

Supervision Responsibilities

1. Receive general supervision of the Special Residential Service Manager.

2. Supervise the personnel of the Areas of remains of Pruning, Debris and Voluminous and Market Waste.

Internal Relations

Operation and Inspection Unit, Customer Service, Ordinary Residential Collection and Marginal Area Management.

BB.9 Institutions, Trade and Industry Services

Structure

Headquarter; Collection and supervision sections

Responsibility

Special collection to the ICIs clients

Tasks

Headquarter

- 1. Verify that the special collection service is provided to the institutional, commercial and industrial clients (ICIs).
- 2. Keep an upgrade cadastre of the companies that provide the service with license to operate incorporating their corresponding clients.
- 3. Maintain the coordination with the Private Operators, Inspection sections, Ordinary Residential Service, Customer Service, and with the Operations and Inspection Unit.
- 4. Verify that the facilities, equipments, vehicles and personal are adjusted to the license granted to each operator.
- 5. Verify monthly that the quantity of waste collected by each ICIs collection operator doesn't surpass the quantity authorized by the license.
- 6. Verify the correct rises of the waste according to service hired by the users with private operators, that this is adjusted to frequency, days and schedules of attention specified in the contract.
- 7. Inform monthly to the Operations and Inspection Unit the quantity of waste collected by each ICIs operator and user.
- 8. Control the performance of the operations according to the indicators established.
- 9. Verify the quality of the service.
- 10. Verify the installation of containers by the ICIs operators in quality, capacity and quantity.
- 11. Verify that the operative personnel have their uniforms, materials and necessary protection equipment and good presentation.
- 12. Present a daily report to the headquarters of the unit.

Supervision Responsibilities

- 1. Receive general supervision of the Operation and Inspection Unit Manager.
- 2. Supervise the private ICIs operators.

Internal Relations

With the Operations and Inspection Unit, Customer Service Unit, Inspection section, Ordinary Residential Service, Special Residential Service, Cleaning in Public Areas.

Annex CC

Public Information

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CC Public Information

CC.1 Objectives

The objectives of public information in this Study are:

- to inform persons/institutions concerned and citizens of this Study, and
- to establish a communication system that delivers information about Solid Waste Management to the persons/institutions concerned and the citizens.

CC.2 Method

In order to deliver information of the SWM, various tools are developed and/or utilized as shown in the table below.

Table CC-1: Target Groups and Tools of Public Information

| Target groups | Tools |
|--|---|
| Undetermined | Internet siteMass media (newspaper, radio, television) |
| Related agencies, interested persons/organizations | SeminarNewsletter |
| Students | Education material |
| Members of the press | Press tours |

CC.3 Public Information Tools

CC.3.1 Internet Site

a. Establishment of Internet Site of Solid Waste Management

The internet is an effective and efficient tool of public information. Although the number of users of the internet is limited in the study area, a certain population has access and the number of such population is expected to grow in the future.

ADN is, at present, giving efforts to deliver information to the citizens through the web site. In order to support the ADN's efforts in the sector of SWM, the Study has designed an internet site as shown in the following figure. A part of the site has become available from the end of September 2005. The page below appeared in the web site at the time. The site is accessible from the main page of ADN; http://www.adn.gov.do/.



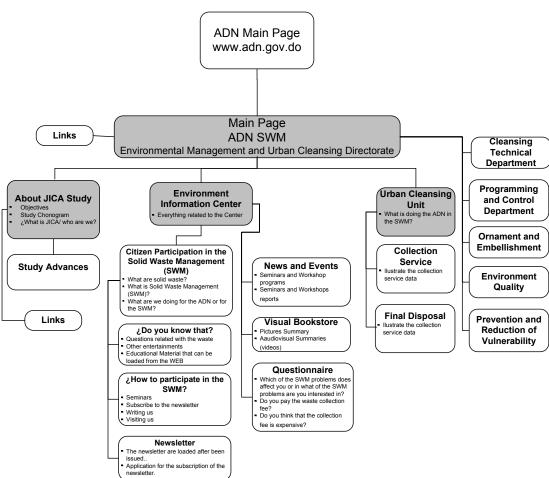


Figure CC-1: Internet Site of Solid Waste Management, ADN

b. Development of the Internet Site

The web site will be maintained and developed continuously. The Environmental Information Center and the Urban Cleansing Unit will play important roles.

b.1 Environmental Information Center

The Environmental Information Center of the National District is a unit, which has a main goal to deliver information related with environment to the citizens. The center is in charge of upgrading the following information for the web site.

- 1. Citizens participation in the Solid Waste Management, SWM
- What are solid wastes?
- What is the SWM?
- What are we doing for the SWM?
- 2. Do you know?
- Ouestions related to solid waste
- Other entertainments
- Educational materials that can be get through the web
- 3. How can you participate in the SWM?
- Seminar
- Subscribing to the newsletter
- Writing us
- Visiting us
- 4. Newsletter
- The newsletters are loaded after having issued.
- Application for the subscription of newsletters
- 5. News and events
- Workshops and seminars
- Reports of workshops/seminars
- 6. Visual bookstore
- Photos
- Audiovisuals (video)
- 7. Questionnaire
- What kind of problems of the SWM do you suffer from, or what kind of issues are you interested in?
- Do you pay the fee for the waste collection service?
- Do you think that the fee is expensive?

b.2 Planning and Control Management

This unit is responsible to upgrade the following information in the webpage:

- Data of waste collection service
- Collection amount in ton per sector
- Disposal amount

CC.3.2 Mass Media

Newspapers, radios and TVs will be informed, when important events are taken place. The Counterpart is in charge of this issue.

So far, the event of signing the Minutes of Meetings of the Inception Report was informed to the mass media and announced to the public.

CC.3.3 Seminar

Seminars are planed to be held three times in the Study period as follows with the hope of disseminating the contents of this Study to persons/institutions concerned.

- 1st March 2006
- 2nd December 2006
- 3rd May 2007

CC.3.4 Newsletter

The first newsletter was issued in August and the second one in October 2005. Also, those are available in the internet site mentioned above.

CC.3.5 Education Material

Environmental education is one of indispensable issues to be challenged in the SWM. It has a wide range of purposes and target groups, such as students in primary schools, in high schools and universities, ordinary citizens, collection workers, municipal personnel, etc. Therefore, a thoughtful strategy is necessary.

JICA has prepared some education materials in the sector of SWM in Latin American countries such as in El Salvador, Mexico, Panama and Honduras. Some of them may be applicable to the Study Area, although a few modifications will be necessary.

The Dominican side and the Study Team have analyzed applicability of those existing materials to the Study Area at present.

CC.3.6 Press Tour

Press tours are expected to be held before and after pilot projects.

CC.3.7 Campaign

Campaigns for raising citizens' consciousness on the SWM will be held, if necessary.

CC.3.8 Communication System with the Citizens

All of them above mentioned are communication systems with the citizens. In addition to them, ADN has a section to communicate with the citizens through telephone. It has only received claims from citizens about the waste collection service, and claims are transferred to the operation sections. However, the section has not been informed of what kinds of measures need to be taken, nor unable to reply to the citizens. In result, the solid waste service of ADN is loosing the trust from the citizens.

CC.4 Lessons

It is expected that the activities above will bring lessons and those will improve the activities. Namely, such lessons are expected to establish a virtuous circle in Public Information.

Annex DD

Minutes of Meetings

MINUTES OF MEETINGS ON THE INCEPTION REPORT

OF

THE STUDY

ON

INTEGRATED SOLID WASTE MANAGEMENT PLAN

IN

SANTO DOMINGO DE GUZMAN, NATIONAL DISTRICT DOMINICAN REPUBLIC

AGREED UPON BETWEEN
AYUNTAMIENTO DEL DISTRITO NACIONAL
AND
JICA STUDY TEAM

Santo Domingo, 12 August 2005

Esmerito A. SALCEDO GAVILAN

Mayor, Ayuntamiento del Distrito Nacional

Santo Domingo de Guzman, National District

Dominican Republic

LIG MORI

JICA Study Team Leader

Witnessed by

Masumi FURUSAWA

ЛСА Advisory Committee

1. INTRODUCTION

1.1 The Study Team has submitted the Inception Report (IC/R, five (5) copies of English version and twenty-five (25) copies of Spanish version respectively) to Ayuntamiento del Distrito National (ADN). Consequently, a series of meetings were held from July 25th to August 12th in Santo Domingo de Guzman, National District, Dominican Republic, to discuss the contents of the IC/R. A list of officials having attended to the above meetings is given in the Appendix 1.

2. ISSUES AND DECISIONS

2.1 Various issues were discussed and clarifications on the Inception Report (IC/R) were made. Subsequently appropriate consensus was reached during the meetings. These issues, clarification and consensus are outlined in the following paragraphs.

2.2 Organization of the Study

The Dominican side has set up the Steering Committee, the Technical Working Group and the Counterpart Team according to the Scope of Work signed on 26 April 2005, and designated and presented members of those groups as listed in the Appendix 2.

The Dominican side proposed to include the Secretariat of the State for Education in the Steering Committee and the Technical Working Group to facilitate planning and implementing activities related to aspect of environmental education.

The Study Team appreciated the participation of the Secretariat of the State for Education in this Study.

2.3 Assignment of Office

The Study Team confirmed and appreciated the office assigned for the joint work of the Counterpart and the Study Team.

2.4 Issues to be addressed in the Study

1) Issue 4: Final Disposal in the Master Plan

The Dominican side informed that the new airport (Joaquin Balaguer) constructed close to the current disposal site (Duquesa Landfill) would operate in the near future.

The Study Team asked the Dominican side to clarify if existence and use of Duquesa Landfill was able to be considered as a prerequisite for planning the Master Plan according to the Scope of Work.

The Dominican side answered that the coexistence of those facilities would not be possible in a

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long period, as the operation of landfill has serious risk on the operation of airport. However, no concrete actions have been taken on this matter. The Dominican side acknowledged importance of final disposal site location in the Master Plan. Consequently, the Dominican side requested the Study Team to plan a transfer system supposing that a final disposal site would be located within approximately 40 km from the center of the National District. Furthermore, evaluation of the current operation of Duquesa and general recommendations for final disposal site selection were requested.

In response to the requests, the Study Team explained that a transfer system would be planned as an item in the Issue 5 and agreed that issues of final disposal were to be clarified as described in the Appendix 3.

The Dominican side appreciated the considerations of the Japanese side.

2) Issue 5: Area without Collection Service

The Dominican side proposed to modify "Issue 5: Area without Collection Service." Although the collection service directly conducted by ADN has become important, there is a huge room to be improved. Therefore, the Dominican side requested the Study Team to address the improvement of collection works in addition to tackling area without collection service.

The Study Team explained that the improvement of collection works carried out by ADN is, of course, included in this Study. Taking into account that the collection works becomes important, the Study Team agreed to clarify this point and to modify as described in the Appendix 3.

2.5. Technology Transfer

a) Meetings of the Technical Working Group

The Study Team proposed to have meetings of the Technical Working Group once a month for promoting the joint study and technology transfer.

The Dominican side agreed with this proposal.

b) Metropolitan Roundtable for Environmental Management

Importance of sharing issues and information about solid waste management in the Metropolitan Area among institutions concerned was pointed out just like mentioned during preparation of the Scope of Work in March 2005.

The Dominican side and the Japanese side agreed that the Dominican side would organize

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the Roundtable periodically and the Study Team would be ready for participating it in case of being invited.

3. Conclusion

3.1 With the above clarifications and modification, the IC/R was approved by the Dominican side.

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Appendix 1

List of Attendants

(Dominican Side)

Technical Secretariat of Presidency

Ms. América Bastidas

Technical Vice Secretariat of Presidency, Chief of Technical

Cooperation

Ms. Ivette Subero

UNDP Consultant for the Technical Secretariat

Secretariat of the State for Environment and Natural Resources

Dr. Max Puig

Secretary of State

Ms. Zoila González

Vice Secretary of Environmental Management

Secretariat of the State for Public Works and Communications

Ms. Claudia de los Santos

Vice Secretary of the State for Public Works

Ms. Mary Grullón

Chief of Environment Department

Secretariat of the State for Public Health and Social Assistance

Dr. Guillermo Serra R.

Technical Vice Secretary of State

Dr. Hector Otero

Vice Secretary of Attention to Patients

Dr. Ircania García

Chief of International Cooperation Unit

Ayuntamiento del Distrito Nacional

Mr. Esmerito A. Salcedo Gavilan

Mayor

Members of the Technical Working Group (See "List of Members of the Technical Working Group") Members of the Counterpart Team (See "List of Members of the Counterpart Team")

(Japanese Side)

JICA Advisory Committee

Mr. Masumi Furusawa

Deputy director-general, International Cooperation Office & Public

Relation Office, Department of Planning, Japan Environmental Sanitation

Center

Mr. Masashi Iwaki

Chief, Waste Plant Operation Division, Shinoro Incineration Plant, Public

Waste Management Department, Environmental Affairs Bureau,

Municipality of Sapporo

Mr. Toru Taguchi

Staff, Environmental Management Team II, Group II (Environmental

Management), Global Environment Department, Japan International

Cooperation Agency

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JICA Dominican Republic Office

Mr. Shozo Fukuda Director

Mr. Norio Yonezaki Sub-director

Ms. Mari Kunimatsu **Project Coordinator**

Study Team

Mr. Ikuo Mori Team Leader

Mr. Masaru Obara Financial Management / Public Private Partnership Ms. Ximena Alegria Collection and Transport / Waste Flow Analysis

Mr. Akira Doi Medical Waste Management / Environmental Considerations

Mr. Masaharu Kina Citizen Participation / Social Considerations

Mr. Victor Ojeda Organization / Legal Structure / Human Resource Development

Ms. Noriko Otsuki Administrative Coordinator Ms. Yuko Aoki Administrative Coordinator

Mr. Mario Valle Interpreter

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Appendix 2

List of Members of the Steering Committee

- Mr. Emérito Salcedo Gavilán, Mayor of the National District, (President of the Committee)
- Mr. Max Puig, Secretary of the State for the Environment and Natural Resources
- Mr. Freddy Pérez, Secretary of the State for Public Works and Communications
- Mr. Sabino Báez, Secretary of the State for Public Health and Social Assistance
- Ms. Alejandrina Germán, Secretary of the State for Education

List of Members of the Technical Working Group

- Mr. José Miguel Martínez, Director EMUCD (Coordinator Technical Working Group)
- Mr. Luis Omar Polanco, Financial Director, ADN
- Mr. Víctor Gómez, Planning and Institutional Director, ADN
- Mr. William Espinosa, Human Development Director, ADN
- Ms. Mónica Sánchez, Master Plan Director, ADN
- Mr. Ramón Galván, Director of Transportation and Equipments, ADN
- Mr. Jaime Lockward, Secretariat of the State for Environment and Natural Resources
- Ms. Mary Grullón, Secretariat of the State for Public Works and Communications
- Mr. Sergio Castillo, Secretariat of the State for Public Health and Social Assistance
- Ms. Angela Martínez, Adviser for the Secretariat of the State for Education

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List of Members of the Counterpart Team

Mr. José Miguel Martínez, Director EMUCD

Mr. Hugo Pérez, Manager of Programming and Control EMUCD

Mr. Miguel Germosén, Technical Director of Urban Cleansing EMUCD

Mr. Oscar Guillermo García, Chief of Operations EMUCD

Mr. Ángelo Rodríguez, Chief of Biomedical Waste Management, EMUCD

Mr. Heisor Arias, Chief of Industrial Waste Management, EMUCD

Ms. Anyelina Aquino, Chief of Environmental Evaluation, EMUCD

Mr. Teodoro Lara, Chief of Environmental Education, EMUCD

Mr. Guillermo Pérez C., Chief of Risk Management, EMUCD

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Appendix 3

Modification of Contents of the Inception Report

| No. | | |
|------|--|---|
| of | Original | Modification |
| page | | |
| 8 | Issue 4: Final Disposal in the Master Plan Issue 5: Area without Collection Service | Issue 4: Final Disposal Issue 5: Collection Service |
| 13 | Issue 4: Final Disposal in the Master Plan | Issue 4: Final Disposal (Original text: "Presently, ADN, together with 4 other municipalities) Taking into account the above two points, the following approaches will be taken in order to formulate a Master Plan of Solid Waste Management targeting 2015 (Original text: "Approach 1: Decision Making by the Dominican Side") Approach 2: Formulation of a Final Disposal Plan In order to formulate a final disposal plan appropriately disposing of waste generated in the National District by 2015, the following activities will be conducted: 1) preparation of improvement measures of the current situation of Duquesa by analyzing and studying the operation and its social and environmental impacts 2) forecast of a remaining life time taking into account the above improvement measures and specific issues related to the existing final disposal site of Duquesa 3) provision of general information and knowledge about procedures of the selection of disposal site in order for the Dominican side to conduct it by them in the future when necessary. |
| 14 | Issue 5: Area without Collection Service | Issue 5: Collection Service Issue 5-1: Area without Collection Service (following sentences are to be inserted at the end of section 2.3.5) Issue 5-2: Improvement of the Collection Service There is a huge room to be improved in the current collection works. The following approaches are to be taken for that purpose in this Study. Approach 1: Improvement of the primary collection Collection routes and frequencies are to be analyzed and reviewed taking into account characteristics of respective collection areas. Approach 2: Improvement of the transfer operations In order to realize efficient and environmentally sound transfer works, operations at the transfer station and transfer points are to be analyzed and reviewed. Approach 3: Setting-up of quality standards for collection |

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| No. of page | Original | Modification |
|-------------------|----------|---|
| | | service The collection service should be transparent and competitive for providing a good quality of service at less cost. For this purpose, quality standards are to be set up. |

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MINUTES OF MEETINGS ON THE PROGRESS REPORT (1)

OF

THE STUDY

ON

INTEGRATED SOLID WASTE MANAGEMENT PLAN

IN

SANTO DOMINGO DE GUZMAN, NATIONAL DISTRICT DOMINICAN REPUBLIC

AGREED UPON BETWEEN AYUNTAMIENTO DEL DISTRITO NACIONAL AND JICA STUDY TEAM

Santo Domingo, 14 December 2005

Domingo CONTRERAS

Secretary General, Ayuntamiento del Distrito

Nacional

Santo Domingo de Guzman, National District

Dominican Republic

Ikuo MORI

JICA Study Team Leader

1. INTRODUCTION

The Study Team has submitted the Progress Report (1) (P/R(1), five (5) copies of English version and twenty-five (25) copies of Spanish version respectively) to Ayuntamiento del Distrito National (ADN). Consequently, a series of meetings were held from November 28th to December 14th in Santo Domingo de Guzman, National District, Dominican Republic, to discuss the contents of the P/R(1). A list of officials having attended to the above meetings is given in the Appendix 1.

2. ISSUES AND DECISIONS

2.1 Various issues were discussed and clarifications on the Progress Report (1) (P/R(1)) were made. Subsequently appropriate consensus was reached during the meetings. These issues, clarification and consensus are outlined in the following paragraphs.

2.2 Content of the report

The Study Team explained the report that consists of description and evaluation of the current situation of solid waste management in the National District.

The Dominican side confirmed the content of the report and agreed to regard it as the baseline for preparing a master plan.

2.3 Incorporation of Master Plan in the Strategic Plan of ADN

ADN is preparing a Strategic Plan targeting year 2015, which will give the National District a direction toward the future.

The Study Team requested ADN to consider incorporating the Master Plan that is to be prepared in this Study in the Strategic Plan.

The Dominican side answered that they would seek a way to realize it.

2.4 Establishment of an independent administrative body

According to the investigation on the current solid waste management in the National District, a weakness was found in the administration of ADN due to political power shifts that hinder an organization from accumulating technical knowledge and experiences.

Then, the Study Team requested the Dominican side to consider establishing an administrative body dedicated mainly to technical issues and having a degree of independent feature from political power shifts, as such administrative body will ensure sustainable delivery of solid waste service to the citizens and will effectively absorb and develop the technology transfer conducted during this Study.

The Dominican side answered that they would seek a way to realize it.

2.5 Establishment of a municipal ordinance

The investigation on the current solid waste management found a necessity of establishing a municipal ordinance on solid waste management in order to ensure delivery of appropriate quality of solid waste service to the citizens.

The Study Team requested the Dominican side to establishing such municipal ordinance.

The Dominican side answered that they would seek a way to realize it.

3. Conclusion

With the above clarifications, the P/R(1) was approved by the Dominican side.

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Appendix 1

List of Attendants

(Dominican Side)

1. Members of the Steering Committee

- Mr. Esmérito A. Salcedo Gavilán, Mayor of the National District (President of the Committee)
- Mr. Max Puig, Secretary of the State for the Environment and Natural Resources
- Mr. Freddy Pérez, Secretary of the State for Public Works and Communications
- Mr. Bautista Rojas, Secretary of the State for Public Health and Social Assistance
- Ms. Alejandrina Germán, Secretary of the State for Education
- Mr. Domingo Contreras, Secretary General, ADN (Coordinator of the Committee)

2. Members of the Technical Working Group

- Mr. José Miguel Martínez, Director EMUCD (Coordinator Technical Working Group)
- Mr. Luis Omar Polanco, Financial Director, ADN
- Mr. Víctor Gómez, Planning and Institutional Director, ADN
- Mr. William Espinosa, Human Development Director, ADN
- Ms. Mónica Sánchez, Master Plan Director, ADN
- Mr. Ramón Galván, Director of Transportation and Equipments, ADN
- Mr. Jaime Lockward, Secretariat of the State for Environment and Natural Resources
- Ms. Mary Grullón, Secretariat of the State for Public Works and Communications
- Mr. Luis Roa, Secretariat of the State for Public Health and Social Assistance
- Ms. Ángela Martínez, Adviser for the Secretariat of the State for Education

3. Members of the Counterpart Team

- Mr. José Miguel Martínez, Director EMUCD
- Mr. Hugo Pérez, Manager of Programming and Control EMUCD
- Mr. Miguel Germosén, Technical Director of Urban Cleansing EMUCD
- Mr. Oscar Guillermo García, Chief of Operations EMUCD
- Mr. Angelo Rodríguez, Chief of Biomedical Waste Management, EMUCD
- Mr. Heisor Arias, Chief of Industrial Waste Management, EMUCD
- Ms. Anyelina Aquino, Chief of Environmental Evaluation, EMUCD
- Mr. Teodoro Lara, Chief of Environmental Education, EMUCD
- Mr. Guillermo Pérez C., Chief of Risk Management, EMUCD

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(Japanese Side)

1. JICA Dominican Republic Office

Mr. Kiyoshi Yoshimoto Director

Mr. Norio Yonezaki Sub-director

Ms. Mari Kunimatsu Project Coordinator

2. Study Team

Mr. Ikuo Mori Team Leader

Mr. Masaru Obara Financial Management / Public Private Partnership

Ms. Ximena Alegria Collection and Transport / Waste Flow Analysis

Mr. Akira Doi Medical Waste Management / Environmental Considerations

Mr. Masaharu Kina Citizen Participation / Social Considerations

Mr. Victor Ojeda Organization / Legal Structure / Human Resource Development

Ms. Yuko Aoki Administrative Coordinator

Mr. Mario Valle Interpreter

Ms. Ayesha Soto Administrative Assistant

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MINUTES OF MEETINGS ON THE INTERIM REPORT

OF

THE STUDY

ON

INTEGRATED SOLID WASTE MANAGEMENT PLAN

IN

SANTO DOMINGO DE GUZMAN, NATIONAL DISTRICT DOMINICAN REPUBLIC

AGREED UPON BETWEEN AYUNTAMIENTO DEL DISTRITO NACIONAL AND JICA STUDY TEAM

Santo Domingo, 7 March 2006

Esmerito A. SALCEDO GAVILAN

Alcalde, Ayuntamiento del Distrito Nacional Santo Domingo de Guzman, National District

Dominican Republic

Ikuo MORI

JICA Study Team Leader

1. INTRODUCTION

The Study Team has submitted the Interim Report (It/R, five (5) copies of English version and twenty-five (25) copies of Spanish version respectively) to Ayuntamiento del Distrito National (ADN). Consequently, a series of meetings were held from 28th February to 3rd March in Santo Domingo de Guzman, National District, Dominican Republic, to discuss the contents of the It/R. A list of officials having attended to the above meetings is given in the Appendix 1.

2. ISSUES AND DECISIONS

2.1 Content of the report

The Study Team explained about the report that consists of the Draft Master Plan of Solid Waste Management.

The Dominican side confirmed the content of the report and agreed to regard it as a basis of preparation of a Master Plan during the rest of schedule of the Study.

2.3 Pilot Projects

The Dominican side requested to conduct the following three pilot projects in the second phase of this Study as pilot projects.

- 1) Integrated collection improvement
- 2) Infectious waste management improvement
- 3) Citizen Participation Encouragement

The Study Team answered to convey the requests to JICA.

2.4 Study Schedule

The Dominican side requested the following about the Study Schedule.

1) to restart the Study as early as possible and to make the schedule intensive

In order to incorporate the Master Plan in the Strategic Plan of the municipality, to establish the Municipal Regulation on Non-Hazardous Municipal Solid Waste Management Service and to launch preparation of the Municipal Corporation within the present administration, the Dominican side requested the Study Team to restart the Study as early as possible and to support them an intensive manner.

2) to make further assistance

The Dominican side mentioned that: a new administration of the municipality would start in August this year; it is sure that measures listed in the Master Plan would be intensively implemented after August; also, it would be very important to take into account implementation of the Master Plan in budgeting for 2007. Consequently, the Dominican side requested further assistance for the new administration in order to take off the implementation of the Master Plan.

The Study Team answered to convey the requests to JICA.

3. Conclusion

The It/R was approved by the Dominican side and fully understood that all decisions on the requests would be made in JICA Tokyo.

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Appendix 1

List of Attendants

(Dominican Side)

1. Members of the Steering Committee

- Mr. Esmérito A. Salcedo Gavilán, Mayor of the National District (President of the Committee)
- Mr. Max Puig, Secretary of the State for the Environment and Natural Resources
- Mr. Freddy Pérez, Secretary of the State for Public Works and Communications
- Mr. Bautista Rojas, Secretary of the State for Public Health and Social Assistance
- Ms. Alejandrina Germán, Secretary of the State for Education
- Mr. Domingo Contreras, Secretary General, ADN (Coordinator of the Committee)

2. Members of the Technical Working Group

- Mr. José Miguel Martínez, Director EMUCD (Coordinator Technical Working Group)
- Mr. Luis Omar Polanco, Financial Director, ADN
- Mr. Víctor Gómez, Planning and Institutional Director, ADN
- Mr. William Espinosa, Human Development Director, ADN
- Ms. Mónica Sánchez, Master Plan Director, ADN
- Ms. Sina del Rosario, Director of the Strategic Plan, ADN
- Mr. Ramón Galván, Director of Transportation and Equipments, ADN
- Mr. Jaime Lockward, Secretariat of the State for Environment and Natural Resources
- Ms. Mary Grullón, Secretariat of the State for Public Works and Communications
- Mr. Luis Roa, Secretariat of the State for Public Health and Social Assistance
- Ms. Ángela Martínez, Adviser for the Secretariat of the State for Education

3. Members of the Counterpart Team

- Mr. José Miguel Martínez, Director EMUCD
- Mr. Hugo Pérez, Manager of Programming and Control EMUCD
- Mr. Miguel Germosén, Technical Director of Urban Cleansing EMUCD
- Mr. Oscar Guillermo García, Chief of Operations EMUCD
- Mr. Ángelo Rodríguez, Chief of Biomedical Waste Management, EMUCD
- Mr. Heisor Arias, Chief of Industrial Waste Management, EMUCD
- Ms. Anyelina Aquino, Chief of Environmental Evaluation, EMUCD
- Mr. Teodoro Lara, Chief of Environmental Education, EMUCD
- Mr. Guillermo Pérez C., Chief of Risk Management, EMUCD

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(Japanese Side)

1. JICA Advisory Committee

Mr. Hidetoshi Kitawaki Chief of the Advisory Committee

Mr. Masumi Furusawa Member of the Advisory Committee

Mr. Toru Taguchi Staff of JICA Tokyo

2. JICA Dominican Republic Office

Mr. Kiyoshi Yoshimoto Director

Mr. Norio Yonezaki Sub-director

Ms. Mari Kunimatsu Project Coordinator

3. Study Team

Mr. Ikuo Mori Team Leader

Mr. Masaru Obara Financial Management / Public Private Partnership

Ms. Ximena Alegria Collection and Transport / Waste Flow Analysis

Mr. Masaharu Kina Citizen Participation / Social Considerations

Mr. Victor Ojeda Organization / Legal Structure / Human Resource Development

Ms. Yuko Aoki Administrative Coordinator

Mr. Mario Valle Interpreter

Ms. Ayesha Soto Administrative Assistant

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MINUTES OF MEETINGS ON THE DRAFT FINAL REPORT

OF

THE STUDY

ON

INTEGRATED SOLID WASTE MANAGEMENT PLAN

IN

SANTO DOMINGO DE GUZMAN NATIONAL DISTRICT DOMINICAN REPUBLIC

AGREED UPON BETWEEN
AYUNTAMIENTO DEL DISTRITO NATIONAL
AND
JICA STUDY TEAM

Santo Domingo, October 27, 2006

Domingo CONTRERAS

Secretary General, Ayuntamiento del Distrito

Nacional

Santo Domingo de Guzman, National District

Dominican Republic

Ikuo MORI

Leader

JICA Study Team

Witness

Eijí IWASAKI Team Director

Environmental Management Team II Global Environment Department

I. Introduction

1.1 The Study Team submitted the following copies of the Draft Final Report (DF/R) to Ayuntamiento del Distrito Nacional (ADN).

| Volume I | Summary (English Version) | 5 copies |
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| Volume I | Summary (Spanish Version) | 25 copies |
| Volume II | Main Report; Municipal Solid Waste (English Version) | 5 copies |
| Volume II | Main Report; Municipal Solid Waste (Spanish Version) | 25 copies |
| Volume III | Annex; Municipal Solid Waste (English Version) | 5 copies |
| Volume III | Annex; Municipal Solid Waste (Spanish Version) | 25 copies |
| Volume IV | Main Report; Healthcare Waste (English Version) | 5 copies |
| Volume IV | Main Report; Healthcare Waste (Spanish Version) | 25 copies |

A series of meetings were held between 23rd and 27th October 2006 in Santo Domingo, Dominican Republic, to discuss the contents of the DF/R. A list of officials who attended to the above meetings is given in the Appendix 1.

II. Results of Discussion

2.1. Comments on the DF/R

1) Improvement of presentation of the Action Programs

It was agreed by both the Dominican side and the Study Team that presentation of the Action Programs should be improved in order for readers to easily understand, e.g., by referring the detailed description concerned to other part of reports such as Annex.

Two Master Plan Scenarios

The Dominican side considers the MP2 as a priority scenario. However, the Dominican side will choose the best scenario by the middle of next year. The Dominican side will establish evaluation items by the end of January, then, will evaluate and choose the best by the end of June.

The Study Team will give recommendable evaluation items in the Final Report in order to help the Dominican side to choose the best scenario.

3) Collection Improvement Process

It was agreed to add a map and a flowchart in the Final Report to present the collection improvement process.

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4) Micro Healthcare Waste Generators

ADN will work in coordination with SESPAS and SEMARN to identify micro healthcare waste generators to take them into account as target healthcare centers in the Action Plan.

During the discussion in Santo Domingo, the above comments were made. It was also confirmed if there would be further comments; those should be made by 3rd November.

2.2. Expected Continuous Cooperation

The Dominican side thanks the Japanese side for the cooperation given so far, and requested to continue such cooperation as training in Japan and other countries, dispatch of volunteers, etc. in order to attain the Master Plan goals.

2.3. Publication of the Final Report

Both the Dominican side and the Study Team agreed that the final report shall be accessible to the general public.

III. Conclusion

Through the discussions and clarifications above, the DF/R was approved by the Dominican side.



Appendix 1

List of Attendants

(Dominican Side)

1. Members of the Steering Committee

- Mr. Esmérito A. Salcedo Gavilán, Mayor of the National District (President of the Committee)
- Mr. Max Puig, Secretary of the State for the Environment and Natural Resources
- Mr. Freddy Pérez, Secretary of the State for Public Works and Communications
- Mr. Bautista Rojas, Secretary of the State for Public Health and Social Assistance
- Ms. Alejandrina Germán, Secretary of the State for Education
- Mr. Domingo Contreras, Secretary General, ADN (Coordinator of the Committee)

2. Members of the Technical Working Group

- Mr. José Miguel Martínez, Director EMUCD (Coordinator Technical Working Group)
- Mr. Joaquín López, ADN Legal Advisor
- Mr. Luis Omar Polanco, Financial Director, ADN
- Mr. Víctor Gómez, Planning and Institutional Director, ADN
- Mr. William Espinosa, Human Development Director, ADN
- Ms. Mónika Sánchez, Master Plan Director, ADN
- Ms. Sina del Rosario, Director of the Strategic Plan, ADN
- Mr. Ramón Galván, Director of Transportation and Equipments, ADN
- Mr. Enrique Grullón, ADN AU
- Mr. Nahum Columna, Environmental Management Director, ADN
- Mr. Gustavo Burgos, Forest and Gardening Department, ADN
- Mr. Jaime Lockward, Secretariat of the State for Environment and Natural Resources
- Ms. Mary Grullón, Secretariat of the State for Public Works and Communications
- Mr. Sergio Castillo, Secretariat of the State for Public Health and Social Assistance
- Ms. Ángela Martínez, Adviser for the Secretariat of the State for Education

3. Members of the Counterpart Team

- Mr. José Miguel Martínez, Director EMUCD
- Mr. Hugo Pérez, Manager of Programming and Control EMUCD
- Mr. Miguel Germosén, Technical Director of Urban Cleansing EMUCD
- Mr. Oscar Guillermo García, Chief of Operations EMUCD
- Mr. Ángelo Rodríguez, Chief of Biomedical Waste Management, EMUCD
- Mr. Heisor Arias, Chief of Industrial Waste Management, EMUCD
- Ms. Anyelina Aquino, Chief of Environmental Evaluation, EMUCD
- Mr. Teodoro Lara, Chief of Environmental Education, EMUCD
- Mr. Guillermo Pérez C., Chief of Risk Management, EMUCD

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(Japanese Side)

1. JICA Tokyo

Mr. Eiji Iwasaki

Team Director, Environmental Management Team

Mrs. Reiko Shindo

Staff

2. JICA Dominican Republic Office

Mr. Kiyoshi Yoshimoto

Director

Mr. Norio Yonezaki

Sub-director

Mr. Kazuyoshi Shinoyama

Sub-director

Ms. Mari Kunimatsu

Project Coordinator

3. Study Team

Mr. Ikuo Mori

Team Leader

Ms. Ximena Alegria

Collection and Transport / Waste Flow Analysis

Mr. Victor Ojeda

Organization / Legal Structure / Human Resource Development

Ms. Yuko Aoki

Administrative Coordinator

Mr. Mario Valle

Interpreter

Ms. Ayesha Soto

Administrative Assistant

