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# **SOLID WASTE CLEAN UP AND LANDFILL MANAGEMENT PROJECT**

**(COOPERATIVE AGREEMENT No. 521-0206-G-00-3035-00)**

**FINAL REPORT**

**COOPERATIVE HOUSING FOUNDATION**

**47, Rue Pacot  
Port-au-Prince, Haiti**

## **I. INTRODUCTION**

Under an existing grant provided by USAID/Haiti, and which was suspended during the coup d'état, the Cooperative Housing Foundation (CHF) was requested by the AID mission to review its previous solid waste management project activities in Port-au-Prince, to revise them in light of the current conditions, and to develop a revised implementation plan.

On August 31, 1993, USAID signed a one-year grant the Cooperative Housing Foundation (CHF) to implement an emergency solid waste clean-up project in Port-au-Prince, Haiti, from August 31, 1993 to August 30, 1994. The major objectives of the grant were:

- a. To clean-up accumulated solid waste in targeted areas of Port-au-Prince and to maintain these areas;
- b. To put as many people as possible to work to clean-up and evacuate the waste.

The project was divided in two phases: Start-up and Clean-up. The start-up phase included activities such as conducting environmental assessments, identifying private contractors, drafting contracts, selecting collection sites, developing management plans, and ordering tools. The clean-up or project implementation phase included coordination of clean-up activities with the Haitian Government, local municipalities, and private contractors; the hiring of contractors to perform the clean-up; and ongoing monitoring and management to insure achievement of employment and garbage removal targets. In details, the clean-up activities entailed the removal by local contractors of the accumulated garbage and debris from the streets and canals in targeted areas of the city and was estimated to employ about 4,000 low-income people.

In June 1994, the grant was changed to a Cooperative Agreement and the original time-line was extended to November 30, 1994. In September 1994, the Cooperative Agreement was extended until May 31, 1995, to allow the cleanup activities to continue and to authorize that technical assistance be provided to the government of Haiti. Two additional no-cost extensions of the technical assistance program to December 1995 and January 1996 respectively were also granted.

This report reviews solid waste management operations in the greater Port-au-Prince area, summarizes CHF's activities under the Cooperative Agreement, and details the results as described in the proposal.

## **II. OVERVIEW OF THE NINTH REPORTING PERIOD**

During this reporting period, CHF continued to provide institutional support and technical assistance to the Haitian Government (GOH). This final phase of the Cooperative Agreement began with a transfer of most of CHF's solid waste management duties to the GOH and culminated with the official presentation to the GOH and the municipalities of the "Revenue Generation Study for Solid Waste Management in Port-au-Prince", a comprehensive overview of available options to finance solid waste management programs in the Port-au-Prince metropolitan area prepared by CHF; and the preparation of a "Solid Waste Procedural" manual to be used in

concert with the study. These activities officially ended USAID's active involvement in solid waste management in Haiti. Another major accomplishment was the creation by the municipalities of a metropolitan-wide municipal council to manage street cleaning, waste collection, and waste disposal in the greater Port-au-Prince area, as suggested in the revenue generation study.

Additionally, the following were accomplished during the ninth reporting period:

- \* Continued to assist the Ministry of the Environment and the Ministry of Public Works with daily programming and control of solid waste cleanup and landfill management operations.
- \* Successfully completed the Fonds d'Assistance Economique et Sociale (FAES) projects which provided employment to 2,500 of whom 890 (about 35.6%) were women.
- \* Provided technical assistance for the preparation of the urban environmental section of the National Environmental Action Plan (NEAP).
- \* Conducted a feasibility study on future landfill sites in the southern part of Haiti. 5 new possible sites were identified.
- \* Completed the preparation of the solid waste procedural manual.

### **III. OVERVIEW OF OVERALL ACTIVITIES OVER THE LIFE OF THE GRANT**

Although initiated under very difficult conditions and during a period of grave economic hardships in Haiti, the Cooperative Agreement between USAID and CHF successfully addressed the solid waste management crisis in the metropolitan area of Port-au-Prince, the Haitian capital, and had a direct and positive socio-economic impact on the lives of its residents. The successful implementation of this solid waste and landfill management project is best characterized as the meshing of various interests, personalities, organizations, and activities who, guided by USAID's and CHF's strong desire to create a cleaner and healthier environment for the Haitian people, worked together on a basis of mutual trust and confidence to bridge the often difficult and quasi-nonexistent interactions of the local public and private sectors and produced Haiti first and only sustainable decentralized model of urban service delivery system.

Between December 13, 1993 and April 15, 1995, CHF created 8,640 person/month of employment for low-income Haitians of which more than 35% went to women. CHF also provided pragmatic leadership to achieve the objectives of the Grant. Through innovative approaches such as technical assistance, training, institutional development to promote the sharing of technical resources and the exchange of technical expertise, CHF was able to strengthen local institutional capacity for solid waste collection and disposal services and to transform the emergency cleanup operation into a long-term sustainable jobs-creation program. This model has been adopted by the local government and is now being implemented by the municipalities of the metropolitan region of Port-au-Prince through a regional municipal council

created at the behest of CHF.

**Making good use of USAID's institutional support, CHF was able to leverage scarce funds to create economic opportunities for various Haitian communities and helped them get a foothold on the climb to development and prosperity. Additionally, CHF elected to remain operational in Haiti following the end of the Cooperative Agreement to ensure continuity of the clean-up programs initiated under the partnership with USAID and to continue helping the Haitian people build better communities by providing much needed technical assistance to various grassroots organizations, local NGOs, and governmental entities.**

IV. FULL ACCOUNTING OF EXPENDITURES UNDER THE GRANT.

<b>FULL ACCOUNTING OF EXPENDITURES</b>			
<b>FEDERAL GRANT NUMBER 521-0206-G-00-3035(NEW) - HAITI-MISSION</b>			
	<b>Expenditures to December 31, 1995</b>	<b>Expenditures to January 15,1996</b>	<b>Cumulative Expenditures</b>
<b>SALARIES</b>			
Salary - Resident	148,706.52	1,384.61	150,091.13
Salary- Local Hire Staff	156,864.29	2,881.28	159,745.57
Short-Term Advisor	27,774.25	0.00	27,774.25
Project Manager	8,238.48	1,107.61	9,346.09
Secretary	4,320.91	0.00	4,320.91
<b>Total Salaries</b>	<b>345,904.45</b>	<b>5,373.50</b>	<b>351,277.95</b>
<b>OVERHEAD</b>			
Overhead	256,898.34	2,431.17	259,329.51
Fringe Benefits	72,626.11	996.88	73,622.99
<b>Total Overhead</b>	<b>329,524.45</b>	<b>3,428.05</b>	<b>332,952.50</b>
<b>CONSULTANTS</b>	<b>28,162.94</b>	<b>0.00</b>	<b>28,162.94</b>
<b>ALLOWANCES</b>			
Education Campaign	5,966.98	0.00	5,966.98
Housing Allowance	5,160.92	0.00	5,160.92
Other Allowances	2,652.45	0.00	2,652.45
<b>Total Allowances</b>	<b>13,780.35</b>	<b>0.00</b>	<b>13,780.35</b>
<b>TRAVEL/TRANSPORTATION</b>			
International Travel	19,364.35	143.00	19,507.35
Shipping/Storage	8,328.98	0.00	8,328.98
Local Travel	21,996.01	178.89	22,174.90
Per Diem	35,185.51	2,207.00	37,392.51
<b>Total Travel/Transportation</b>	<b>84,874.85</b>	<b>2,528.89</b>	<b>87,403.74</b>
<b>OTHER DIRECT COSTS</b>			
Professional Fees	30,799.21	0.00	30,799.21
Communications & Postage	17,468.85	0.00	17,468.85
Printing & Duplication	3,968.15	(1,004.44)	2,963.71
Rent & Utilities	25,400.25	0.00	25,400.25
Supplies	17,479.92	(1,504.36)	15,975.56
Equipment Rental & Repairs	10,652.33	646.74	11,299.07
Subcontracts	1,298,316.57	0.00	1,298,316.57
Clean Up/Landfill	435,857.89	(689.82)	435,168.07
Landfill/Truitier	129,535.35	0.00	129,535.35
Subcontract/Trou Sable	14,243.99	0.00	14,243.99
Subcontract/ Brea Project	14,444.01	0.00	14,444.01
Furn/Fixt/Equipment Expense	7,185.43	0.00	7,185.43
Pilot Project	38,267.43	0.00	38,267.43
Miscellaneous	49,609.35	918.51	50,527.86
<b>Total Other Direct Costs</b>	<b>2,093,228.73</b>	<b>(1,633.37)</b>	<b>2,091,595.36</b>
<b>TOTAL EXPENDITURES</b>	<b>2,895,475.77</b>	<b>9,697.07</b>	<b>2,905,172.84</b>

## **V. PROJECT BACKGROUND**

### **A. Project Purpose**

On August 31, 1993, USAID signed Grant 521-0206-G-3035-00 with CHF to implement an emergency solid waste clean-up project. The original time-line for this grant was for one year, from August 31, 1993 to August 30, 1994. In June 1994, the grant was changed to a Cooperative Agreement (No. 521-0206-A-00-3035-00) and revised to extend the initial program until November 30, 1994. In September 1994, the Cooperative Agreement was extended until May 31, 1995, with cleanup activities scheduled to be phased out at the end of March 1995, while technical assistance would be provided to the government of Haiti until the end of May 1995.

The combined purpose of the amendments of the project (August 31, 1993 - May 31, 1995) is to:

1. Employ up to 5,340 daily workers in clean-up activities for a period of 8,000 person months under USAID's Jobs Creation Program (phase-out scheduled for the end of March 1995.)
2. Oversee and monitor the disposal of a minimum of 420,000 m<sup>3</sup> of solid waste in Port-au-Prince.
3. Assist the government of Haiti in managing the disposal of solid waste and the closing of the dump-site at La Saline.
4. Provide oversight, technical and material resources and monitoring services to the government of Haiti for the opening of a new landfill at Truitier. Provide general leadership and act as a coordinator among the Pan-American Development Foundation (PADF), SMCRS and other interested parties on issues related to Truitier.
5. Provide technical assistance (study tours, technical studies in taxation and landfill management) to establish sustainable solutions for solid waste management in Haiti.
6. Conduct community development projects and a publicity campaign to educate the public on the importance of sanitation.

A no-cost extension extending the budget/project period from May 31 1995 to December 31, 1995, was granted. The purpose of this extension was to continue the technical assistance program to the government of Haiti to reinforce its ability to provide basic sanitation services. This no-cost extension consisted of:

1. Working closely with the Ministry of Environment (MOE) and the municipalities to develop the management and monitoring systems within their offices for decentralized, privatized collection and disposal services.
2. Leveraging resources from USAID and other donor organizations (with USAID approval) to implement more jobs creation and infrastructure rehabilitation projects (e.g. canal construction, repair cleaning, latrine building).

An additional no-cost extension extending the budget/project period to January 15, 1996 was also granted to enable completion of the solid waste procedural manual and for CHF to conduct a feasibility study to identify possible landfill sites in Haiti's southern part.

## **VI. SUMMARY DESCRIPTION OF PROGRAM ACTIVITIES**

### **A. Jobs Creation Activities**

Throughout the life of the project, CHF and its contractors provided 8,640 person/month of employment to low-income Haitians. Of this total, 3,073 (35.56%) went to Haitian women.

The no-cost extension period (May 31, 1995 to January 16, 1996), saw a major increase in jobs creation activities. These activities started with a \$909,000 jobs creation package submitted to the Fonds d'Assistance Economique et Sociale (FAES) in early June for drainage systems (canals) clean-up and streets rehabilitation in the populous areas of Martissant, Solino, Cote Plage, Bizoton, Fontamara, and Bolosse. These labor intensive projects were approved on July 4, 1995, and started less than a week later at the request of FAES. Seventeen subcontracts were signed with local grassroots organizations during this period to facilitate the implementation of these projects which overall, provided employment to an additional 3,000 low-income Haitians of which more than 30% were women.

### **B. Collection Activities**

Between December 13, 1993 and April 15, 1995 CHF, through its contractors, collected 271,776 m<sup>3</sup> of solid waste in the metropolitan region of Port-au-Prince. Although the Ministry of Public Works (TPTC) assumed control of the collection activities, it requested that CHF continues to oversee clean up activities in the streets and to be responsible for scheduling and programming cleanup activities as part of the technical assistance during the no-cost extension. An additional 197,456 m<sup>3</sup> of solid waste was collected over this period under CHF's leadership.

### **C. Community Level Clean-up and Education Campaign**

During the life of this Cooperative Agreement, CHF conducted community clean-up activities in various informal settlements in Haiti. These activities consisted of assisting local grassroots organizations in providing clean-up services to their low-income communities. Since there are no road access in these communities, these organizations assisted by CHF collected garbage in the narrow corridors and brought them to a central collection point accessible by CHF's private contractors. On specific days and following a preestablished schedule, local animators circulated in these areas to announce the arrival of the collection crews and to ask the residents to bring their garbage to them. These animators who were trained by CHF/Haiti, also discussed sanitation and health issues in the communities in which they worked and helped lay the ground work for eventual payments by the residents for these services. In two of these settlements, namely Brea and Trou-Sable, CHF provided 1,000 person/month jobs with the majority going to women.

CHF also conducted evaluation workshops of its pilot community clean-up projects to promote the exchange of information, experience, and resources among a network of collaborating agencies and grassroots organizations. Further, the workshops served as a vehicle to facilitate the development of educational tools to promote the importance of sanitation and environmental protection throughout Haiti and provided the participants with some important ideas and products (jingles, videos, anecdotes for radio, television, public meetings, etc.) to take back to their respective communities to further intensify the awareness campaign.

## **D. Disposal Activities**

Over the life of the grant, CHF effectively oversaw the disposal of 732,698.07 m<sup>3</sup> of solid waste at La Saline and Truitier. The success of landfill operations and management was a direct result of CHF's leadership during the implementation of this grant. Disposal operations were marked by two major events: The closure of the La Saline dump-site, and the conversion of Truitier from an ill-managed dump-site to an environmentally sound landfill. CHF conducted a feasibility study on future landfill sites throughout Haiti in collaboration with the Ministry of the Environment to whom CHF currently provides institutional support and technical assistance for the NEAP while continuing its capacity building efforts with the Ministry for overall environmental management.

## **E. Technical Assistance**

Both during the ninth report period and over the life of the grant, CHF's technical assistance program took a variety of forms among which are the following:

### **1. Technical Visits**

CHF/Haiti's Director and deputy-Director accompanied the GOH's Director of SMCRS (Service Metropolitain de Collecte de Residus Solides) and some of his staff on a CHF sponsored technical visit to Washington, DC to show them how well managed solid waste programs function. Places visited included the EPA's Office of Solid Waste Management, IDB's technical offices, and Brown Ferries Industries. Also, CHF/Haiti and the MOE attended a solid waste management seminar conducted in Kingston, Jamaica, by the U.S. Environmental Training Institute and which addressed solid waste management programs in the third world.

At the request of the IDB, CHF/Haiti participated in a successful world-wide conference held in Curitiba, Brazil, to discuss the ways that NGOs can help improve the environment.

### **2. Landfill Management Study**

CHF developed a landfill management technical manual in both French and English to assist the government and the private sector in managing and monitoring the Truitier site. This study was officially submitted to the Ministry of the Environment. It describes current physical and administrative conditions concerning solid waste disposal in Port-au-Prince and provides specific recommendations for appropriate management and monitoring systems for safe, practical, economic, and environmentally sound waste disposal methods at the landfill. On the basis of the findings and recommendations contained therein, the IDB voted to allocate \$1.5 million for the rehabilitation of the landfill as part of the PURE program.

### **3. Revenue Generation Study**

Working closely with the Haitian Government, CHF conducted a revenue generation study that identifies sustainable revenue sources and different approaches to financing collection and disposal services in Port-au-Prince. The study, which was warmly received by the GOH and the municipalities of the greater Port-au-Prince area, also sets the parameters for the creation of a viable system of user fees to pay for solid waste management services throughout the country. On December 8, 1995, the MOE convened a conference at the Christopher Hotel to present the study's findings to key representatives

for the municipalities of the greater Port-au-Prince area, the Haitian Government, and the international donors community. Frantz Benoit, CHF/Haiti new Director, and Franck Daphnis Jr, the project manager at CHF's Washington Headquarters presented the study.

4. Solid Waste Management Manual

During the ninth quarter of the grant, and as part of the USAID/CHF partnership to provide the municipalities with management tools to continue the program after the emergency intervention, CHF produced a solid waste management manual using the model metropolitan-wide collection and disposal system it implemented in Port-au-Prince. The manual is designed to help municipal leaders understand their present waste management problems, possible techniques for solving them, and how these solutions influence each other. The manual also provides local decision-makers with the necessary knowledge to institute an overall framework for managing the waste generated in their communities and shows them how to cultivate a dedicate staff and establish a well-defined structure with which the municipality can effectively face its solid waste management problems.

5. Technical Assistance to the Ministry of Environment (MOE)

During the ninth reporting period, CHF continued to provide technical assistance to the MOE by continuing to site new landfills throughout the country and helping with the supervision of solid waste management activities in Port-au-Prince. CHF provided institutional support and technical guidance for the National Environmental Action Plan (NEAP), acted as the principal liaison with affected communities on environmental matters, and continued its capacity building effort with the Ministry.

Over the life of the Cooperative Agreement, technical assistance was provided in a variety of forms to the MOE. Creation of an intersectorial commission to define the next stage of work in solid waste collection/disposal as USAID phased out its direct involvement; membership in the MOE's sanitation commission; creation of used oil, engine pollution, and special wastes monitoring commissions; institutional support through projects development and implementation; capacity building initiative through training; study tours; technical studies in taxation and landfill management; are but a few examples of the activities conducted by CHF in support of MOE.

6. Technical Assistance to the Ministry of Public Works (TPTC)

CHF continued to assist TPTC during the ninth quarter by providing daily programming and supervision of solid waste cleanup and landfill management activities. Assistance to TPTC over the life of the grant included professional training and other capacity building activities; supervision and monitoring of landfill operations; the closure of the dump-site of La Saline which was an environmental nightmare for the municipality of Port-au-Prince; the opening of an official landfill at Truitier; etc..

**F. Education Campaign**

During the implementation of the Cooperative Agreement, CHF developed and conducted in collaboration with its community-based organizations an education and motivation campaign to emphasize the importance of the cleanup project and raise the residents consciousness on sanitation efforts in their communities. Part of this initiative included the organization of poster contests in primary schools on sanitary issues; a publicity campaign that included radio spots,

jingles, videos, and billboard advertisements; various animation programs in informal settlements using mega-phones to reach the residents of those overpopulated and inaccessible areas.

#### **G. Assessment of Program Impact in Achieving Program Purpose and Objectives**

CHF's accomplishments under this grant went far beyond the anticipated results described in the unsolicited proposal. As a direct result of CHF's intervention, mountains of waste no longer accumulate in the streets and public markets of Port-au-Prince and its vicinities; garbage and debris no longer inhibit the free-flow of canal drainage; associated health problems have diminished considerably and completely disappeared in some areas; waste are now disposed at an officially approved and environmentally sound landfill; employment was provided on a large scale to low-income Haitians of which over 35% were women. Above all, through its capacity building initiative, this USAID/CHF partnership provided the Haitian people, their government, and various local grassroots organizations with the necessary tools to manage the country's solid waste problem on a long-term and sustainable basis.

### **VII. ADMINISTRATION**

#### **A. Audit**

A thorough financial review of all Clean-up and Landfill Management activities performed from September 1, 1994 through May 31, 1995 was conducted by the independent accounting firm of Merové-Pierre. The results, which have been provided to USAID, revealed that CHF operated in full compliance with the terms of the agreement and applicable laws and regulations.