



USAID
FROM THE AMERICAN PEOPLE

LAC-IEE-05-35

ENVIRONMENTAL THRESHOLD DECISION

<u>Activity Location:</u>	Haiti
<u>Activity Title:</u>	Amendment to Emergency Solid Waste Collection, Landfill Rehabilitation & Job Creation Program
<u>Ammends:</u>	LAC-IEE-04-50
<u>Activity Number:</u>	521-0257
<u>Life of Activity Funding:</u>	US\$ 4,750,000
<u>Life of Activity:</u>	18 months
<u>IEE Prepared by:</u>	Lionel Poitevien, MEO, USAID/Haiti
<u>Recommended Threshold Decision:</u>	Categorical Exclusion/Negative Determination with Conditions
<u>Bureau Threshold Decision:</u>	Concur with Recommendation

Comments:

This amends LAC-IEE-04-50 in order to add \$3.75 million to include additional solid waste removal and canal cleaning, institutional reinforcement of the SMCRS, training and publicity. The rehabilitation of 1.3 kilometers of road is also covered, as mentioned in the previous IEE. Management of waste and rehabilitation of the road leading to the landfill can have potential negative impacts unless the guidelines and mitigating measures in the attached IEE are carefully followed.

Therefore, per 22CFR216.2(c)(1)(i)&(ii), a **Categorical Exclusion** is issued for activities such as basically training, public information, program monitoring/administration, and education which will have no direct effect on the environment, and thus are eligible for a categorical exclusion.

A **Negative Determination with conditions** is issued for activities involving management of waste and rehabilitation of the 1.3 km of road leading to the landfill. The conditions are that all best management practices, mitigating measures, and guidelines recommended in the attached IEE will be carefully followed by the implementing agent.

In addition, provisions for worker safety in handling refuse must be included. Examples include the requirement to wear boots, gloves and long pants as well as education regarding hazardous substances they may encounter.

Best management practices will be incorporated into the road rehabilitation. The LAC Environmental Guidelines as well as the manual by Keller and Sherar are helpful. The links below can be used to access an English version of the Keller and Sherar document that contains useful photos and diagrams.

<http://zietlow.com/manual/gk1/web.doc>

<http://www.blm.gov/bmp/field%20guide.htm>

Mitigation measures from LAC-IEE-04-50 are still in effect.

CTOs are responsible for making sure environmental requirements are met, especially the conditions set in the IEE. It is the responsibility of the SO Team to ensure that the SOAG and MAARDs for contracts and grants contain specific instructions to this effect.

The Mission Environmental Officer (MEO) will conduct spot checks to ensure that conditions in the IEE and this ETD are met and to ensure that all activities are implemented in an environmentally sound and sustainable manner in full accordance with all salient Agency and USG policies and regulations.

_____ Date _____
Victor Bullen.
Bureau Environmental Officer
Bureau for Latin America and the Caribbean

Copy to: Pamela Callen, Director, USAID/Haiti

Copy to: George Callen, EGE, USAID/Haiti

Copy to: Lionel Poitevien, MEO, USAID/Haiti

Copy to: Michael Donald, REA, USAID/DR

Copy to: Beth Cypser, LAC/CAR

Copy to: Gerald Barth, LAC/CAR

Copy to: IEE File

Attachment: IEE

File: IEE05-35 ETD(HA Solid Waste Removal amend IEE-04-50).doc

[SUPPLEMENTAL]
INITIAL ENVIRONMENTAL EXAMINATION

Project Location: Haiti

Project Title: Addendum to the Solid Waste Removal Program in the Port-au-Prince area by PADF

Project Number: 521-0257

Funding: US \$ 4.75 million

Life of Project: 18 months

IEE Prepared by: Lionel Poitevien, Mission Environmental Officer
USAID/Haiti

Recommended Threshold Decision: Categorical Exclusion/Negative Determination with Conditions

CONCURRENCE

George Callen, Acting Chief
Economic Growth and Education Office
USAID/Haiti

Karen Poe, Chief
Policy Coordination and Program Support Office
USAID/Haiti

CLEARANCE

Pamela Callen, Acting Mission Director
USAID/Haiti

Victor Bullen, LAC Bureau Environmental Officer

**LAC BUREAU
ENVIRONMENTAL
OFFICER'S DECISION**

Approved: _____ Date: _____

Background

According to the Interim Government of Haiti (IGOH), local authorities, and civil society, the collection and disposal of garbage in urban areas is currently one of Haiti's most pressing problems. The lack of adequate solid waste management services has become the most evident manifestation of the current political crisis.

The GOH's main waste management authority, the SMCRS (*Service Metropolitain de Collecte des Résidus Solides*), is ill-equipped and lacks the financial resources necessary to carry out its essential functions. Despite donor contributions of dozens of garbage trucks to SMCRS over the past several years, only a few of these trucks are currently operational. Maintenance, equipment theft, and mismanagement have been chronic, and the lack of continuity in the management of the institution has further exacerbated the situation.

The SMCRS serves the 2.5 million inhabitants of the Port-au-Prince metropolitan area. Port-au-Prince currently produces 4,000 cubic meters (m³) of solid waste per day; only 300 m³ is collected. As a result, solid waste is accumulating in the thoroughfares and back alleys of Port-au-Prince. The population of the capital city, especially in marginal neighborhoods, is forced to live in the midst of the uncontrolled detritus.

Cité Soleil is in a well-delineated area West of Highway #1 and North of the Bicentenaire where it joins the former. It normally contains about 300,000 people, although the population has undoubtedly fallen due to the recent violent unrest. Bel-Air and Bas Delmas essentially comprise one economically-depressed area around the bottom of the Delmas road, where it meets the Bicentenaire. Both zones almost totally lack any basic services, such as water, electricity, and garbage collection. Most residents earn what little they can extract from small commercial enterprises, mainly reselling small units of food products.

This Initial Environmental Examination (IEE) is being submitted in response to PADF's proposal to address the waste management problem in the Cité Soleil, Bel-Air, and Bas Delmas area. This IEE is drafted in accordance with the Agency's environmental guidelines outlined in the Automated Directives System, as well as Federal environmental regulations set forth in 22 CFR 216.

Program Description

PADF is currently implementing a \$1.25 million solid waste removal program in the metropolitan Port-au-Prince area, but not including the areas cited above. This gives PADF the experience, through its personnel and contacts, to undertake this larger and more fraught program.

Program Goals:

- Contribute to an increased quality of life for the residents of the areas by decreasing unemployment and increasing security over the short and medium term
- Improve the economic and sanitary conditions for the very poor, specifically untrained and unemployed workers
- Increase the sustainability of garbage collection in Port-au-Prince and its area.

Program Objectives:

- Over 18 months, remove 200,000 M³ of solid waste from the areas to the Trutier dump site, specifically 150,000 M³ from the streets, 15,000 M³ from the canals, and 35,000 M³ from the streets through TA to SMCRS.
- Create 15,000 person-months of employment to 1,260 people.
- Engage grass-roots organizations and the local governments in the solid waste collection process.
- Improve the quality of life for neighborhoods through the rehabilitation of infrastructure such as streets, schools, and clinics.
- Increase the capacity of the state solid waste collection agency (SMCRS) through the repair of its equipment and the provision of maintenance TA.
- Offer local residents participation in assistance needs identification.
- Offer financial and technical assistance to the Ministry of TPTC to find long-lasting solutions to the waste management challenges it faces.

Methodology:**1. Solid Waste Removal and Canal Cleaning:**

Ninety-eight teams will be formed to collect solid waste, 62 in Cité Soleil, and 36 in Bel-Air & Bas Delmas. The day laborers will be paid the equivalent of \$2.00 per day for six-hour days that include a 30-minute break. They will be issued the necessary tools, such as shovels, brooms, wheelbarrows, and the like, to deposit street waste in designated pickup spots from where it will be picked up by private contractors and the SMCRS teams using hand labor and mechanical loaders and will be transported to Trutier where it will be dumped and spread by a SMCRS bulldozer and additional manual laborers. PADF inspectors will verify the process at all points.

Due to the nature of the job, cleaning of primary canals will be somewhat more mechanical than street cleaning. Both private firms (through competitive bids) and the SMCRS (with TA provided by the program) will be used, with the waste matter transported to Trutier in the same manner as street waste. Secondary canals will be cleaned by teams of workers, in a manner similar to street cleaning.

In all cases, PADF will work closely with SMCRS and TPTC (the GOH ministry heading SMCRS) through weekly meetings, to ensure that the program works well and that the maximum transfer of responsibility and technical know-how is attained.

2. Institutional Reinforcement of SMCRS:

The SMCRS has been less than totally effective since its creation in 1981, never having collected more than 60% of the solid waste produced. The reasons include corruption and chronic lack of funding. SMCRS has about 45 trucks in its fleet; only some 20 function to some degree.

Given that garbage collection is a basic and necessary public service with a significant influence on the public sense of satisfaction with its government, several collection programs have been implemented over the last ten years. Unfortunately, once the program financing ceased, so did most of the activities. To avoid this from happening with this program, USAID wishes to offer SMCRS technical assistance that will enhance its ability to perform regardless of the external assistance it may receive. In addition, PADF will seek innovative and adaptable solid waste collection strategies in neighboring countries to test in the Haitian situation that hold promise to lower the amount of waste produced, ease the collection burden, render the process more sustainable, and secure more dependable financing.

Specifically PADF will invest about \$532,000 in SMCRS over the one-year period:

- To repair collection equipment. This will be done in two stages: a preliminary grant of one-half; the rest contingent on SMCRS performance. In addition, two repair strategies will be pursued: private sector turn-key repairs and training/subsidization of the SMCRS garage.
- To offset Trutier landfill site costs, such as fuel and labor to distribute incoming waste and maintain the site.
- To repair the Trutier access road. This dirt road will require three interventions (after each rainy season), involving some replacement of fill and grading/rolling.

3. Infrastructure Rehabilitation:

It is not certain that infrastructure rehabilitation programs will start in these slum areas during the first 3 months (phase I) of this program (which is why they are not reflected in the budget). Nevertheless, it is hoped that they will be possible during the second phase of the program, as they would provide hope, opportunity, and, therefore, some measure of stability for the years following the end of the high intensity labor program. During the course of the first phase of the program, an assessment will be made of the feasibility of branching into infrastructure rehabilitation activities, and the results presented to and discussed with USAID. If the conditions of safety and efficiency are not met, the garbage collection will continue apace; if they are, small projects will be chosen using participative methods, for approval by USAID under the substantial involvement clause.

It is likely that a modified and simplified World Bank Community Driven Development methodology will be used to choose infrastructure rehabilitation projects. Briefly, this methodology empowers local groups to democratically make the tough decisions of

activity choice, and requires community follow up. In short, it provides community empowerment and builds civil society, as well as providing the services paid for.

4. Training and Publicity:

CARE will be given a sub-grant to continue its popular training in direct health and hygiene messages delivered to the workers and public and environmental health messages disseminated through team leaders. Using these community members, already selected due to their standing and influence in the community, the program will employ a training of trainers approach to key environmental and public health themes, sharing visual aids and simple reference materials which highlight the importance of such issues as:

- Hazards of uncontrolled waste
- Vectors for disease spread
- Importance of drainage canals
- Civic responsibility for household waste management

Messages will be designed to have an immediate and personal impact, building upon the reality of recent tragic experiences, with lives and homes lost as early rains already overwhelm polluted streets and clogged drainage systems.

Yéle Haiti, the foundation of Haitian-American Hip Hop star Wyclef Jean, will be granted funds to provide the “branding” for the program. This is critical, as the areas are extremely dangerous and Wyclef Jean and his contacts in the slums have influence over the elements that might otherwise cause sufficient trouble that the activities would have to cease or be delayed. Yéle Haïti, as it does in the present project, will provide appearances by the star, and dissemination of the logo, jingle, signs, tee-shirts, and caps.

Environmental Considerations:

It is not anticipated that this program will cause any environmental problems in excess of those caused by the present program and current general practice in the handling of Port-au-Prince solid wastes. This program will use the same dump site and the same methodology as the current program and the one before that (implemented by CHF). On the other hand, the TA offered to SMCRS, the alternative handling methodologies being sought, and the improved landfill site management expected, can all be expected to lessen negative environmental impact.

Targeted Ecosystem

The Truitier landfill is located in the Cul de sac plain at approximately eight kilometers north of downtown Port-au-Prince. According to the Ministry of Public Works, which oversees the SMCRS, the site occupies 205 hectares. Approximately 94 hectares are strictly designated for dumping, 50 hectares are reserved for materials to cover the waste and 16 hectares are used to store tools and equipment. The landfill is divided by open

canals and there is a 1.3 kilometer road for truck movement in, out and within the landfill. This road is currently covered with tons of garbage. The Truitier landfill is the only official dumpsite in Port-au-Prince and according to government officials it has another 10-15 years of service left. There are no protected areas, such as national parks and wildlife preserves, nor natural forests or other undisturbed biotic communities near these areas. In addition, the Truitier landfill is literally above clay soils, has good capacity and is easily accessible for waste delivery.

Description of Environmental Impact

Refuse disposal is chaotic in Haiti, particularly in Port-au-Prince. Unsanitary conditions exist because the population in residential and business areas discards its refuse in the streets, storm sewers, drainage ditches, water courses, and the ocean. In some areas, the population openly burns a portion of the refuse to dispose of it or reduce its volume. In addition to the obvious public health hazards, these practices lead to the obstruction of the drainage facilities.

The municipal solid waste stream in Haiti contains general wastes (organics and recyclables), special wastes (household hazardous, medical, and industrial waste), and construction and demolition debris. Most adverse environmental impacts of solid waste management in Haiti are rooted in inadequate or incomplete collection, or in inappropriate siting, design operation, or maintenance of dumps or landfills.

Nonetheless, the proposed rehabilitation of 1.3 km of road leading to the landfill may be detrimental to the physical environment if Best Management Practices and mitigative measures are not correctly implemented.

Improper waste management activities can lead to the following negative environmental impacts:

- Improper collection and disposal can result in increased disease transmission or otherwise threaten public health. Putrefying organic materials can become breeding grounds for disease vectors such as rats and flies. Waste-handlers and waste-pickers risk contracting diseases, especially if human or animal excreta or medical waste is in the waste stream. Populations are also at increased risk for poisoning, cancer, birth defects, and other ailments.
- Municipal solid waste stream can bleed toxic materials and pathogenic organisms into the leachate of the landfill. If the landfill is unlined, depending on the

drainage system and the composition of the underlying soils, runoff can contaminate ground or surface water.

- When organic wastes are disposed in landfills, they undergo anaerobic degradation and become significant sources of methane, which a greenhouse gas that is more powerful than carbon dioxide.
- Garbage is often burned in Haiti's residential areas and in the landfill to reduce volume. Burning creates thick smoke that contains carbon monoxide, soot, and nitrogen oxide, all of which are hazardous to human health and degrade urban air quality. Combustion of polyvinyl chlorides (PVCs) generates highly carcinogenic dioxins.
- Landfills in sensitive ecosystems may destroy or significantly damage these valuable natural resources and the services they provide.
- The accumulation of waste along streets can clog drains and cause localized flooding.

The use of sound environmental management practices and mitigative measures can alleviate or eliminate these potential threats.

Mitigation Measures

Below are the proposed conditions to the recommended determination:

A- Waste Management

1. It is understood that limited resources and the short-term nature of this project may prevent PADF from implementing a holistic and integrated waste management program where all types of waste and all facets of the waste management process are considered; however, one of PADF's goals shall be to build the technical, financial, and administrative capacity in Haiti to manage and sustain a long-term integrated waste management system.
2. PADF shall monitor their activity carefully to ensure effective and efficient waste collection and transport. Experience in Port-au-Prince shows that trucks on their way to the landfill often re-dump the refuse in another part of the city, shifting the environmental hazards from one community to another. In addition, all trucks loaded with garbage must be covered while traveling to the landfill in compliance with local laws and regulations.
3. The implementing partners (sub-contractors) must ensure that the appropriate tools, equipment, and training are made available to the waste collectors at the designated point to ensure an environmentally-friendly and safe collection.
4. PADF shall hire staff (within the framework of job creation) to monitor and control the dumping at the landfill. Garbage truck drivers will only be allowed to dump waste

- in pre-determined sites within the landfill and not along the entrance road. The presence of monitors at the dumping site should track the quantity of waste per truck.
5. PADF shall at the extent possible promote the following three aspects of waste minimization: reduction, reuse and recycling. Organics make up 50-60% of the waste stream in Haiti, and plastics are a substantial portion of the remaining waste. To the extent possible PADF shall consider, even for the sake of environmental awareness, the inclusion of reuse and recycling aspect of waste. Good effort should be made to separate the different types of waste at collection as well as at the disposal site and to find existing outlets for the recyclable materials.
 6. Manual labor rather than heavy equipment shall be utilized whenever possible to collect and dispose of waste.
 7. PADF shall ensure that relevant environmental mitigation and monitoring measures established in this IEE be routinely incorporated into agreements with local partners and institutions.
 8. Under this agreement, PADF shall develop a closure and post-closure plan for the Truitier Landfill, which it will communicate to the GOH.
 9. Effort should be made to complement other activities that are being supported by USAID/Haiti and the Government of Haiti on waste management.
 10. PADF shall include in its timely report all unusual situations that happened during project monitoring and the solution that was adopted. The report should also include a section for environmental monitoring and compliance as well as well the volume of waste collected and effectively dumped at the landfill.
 11. PADF will strive to sensitize local government and non-governmental agencies, which have less formal relationships to the project, to the environmental issues associated with waste in the capital city. All local partners involved with projects activities will be supplied with copy of the USAID/Haiti environmental guidelines, translated into local language (Creole and/or French).
 12. During the 18-month implementation period, PADF is required to monitor and evaluate project's success against pre-determined indicator benchmarks as established by the baseline survey PADF plans to undertake at the onset of the project.

B- Road rehabilitation

- 1- Existing road alignments will be followed in and out and within the landfill. Road widths will be kept to the minimum required to achieve objective of all-year vehicle access.
- 2- The road surface shall be stabilized with gravel or any other rocky surfacing material.
- 3- Careful and selective bulldozing may be feasible in some cases, but PADF shall consider that dozer tracks can easily expose soil to erosion and do more harm than good.
- 4- Possible drainage structures shall be installed during rather than after rehabilitation. Diversion structures shall be installed. Diversion structures, such as cross drains, rolling dips, or water bars shall be installed in such a way that water can be moved off the road frequently and easily to minimize its concentration.

- 5- Stabilize outlet ditches (inside and outside) with small stone riprap or vegetative barriers placed on contour to dissipate energy and to prevent the creation or enlargement of gullies
- 6- Immediately after the first heavy rain and at the end of the rainy season, PADF should visually spot check for drainage problems and to take appropriate corrective measures.
- 7- These above guidelines and procedures shall be translated into local language and incorporated into contracts with sub-grantees or construction firm undertaken the rehabilitation works. The firm shall be accountable for their effective implementation.

PADF will maintain records regarding the effectiveness of the above guidelines and mitigation measures to establish control guidelines for future activities. The Mission Environmental Officer (MEO), together with the project's Cognizant Technical Officer, will conduct spot checks to ensure that PADF management implements the measures set forth under this IEE.

The mitigation recommendations indicated above should prove sufficient to alleviate any significant environmental concerns associated with the proposed agreement activities. It is therefore concluded that, if implemented as recommended above, this agreement can be completed in an environmentally-sound and sustainable manner in full accordance with all salient Agency and USG policies and regulations.

Recommendations

Pursuant to USAID environmental regulations expressed in 22 CFR, section 216.2 (c)(1)(i),(ii), we request your approval for a **categorical exclusion** from further environmental review for all activities involving program monitoring and administration, education/training on integrated waste management activities, and other actions that will not have an adverse impact on the natural or physical environment.

USAID/Haiti recognizes that waste management into the metropolitan area of Port-au-Prince has an important role to play in safeguarding the health of Haitians. Based on the above guidelines and conditions relative to waste management, USAID/Haiti believes there will be minimal environmental impact. Therefore, a **negative determination with conditions** is proposed for the management of waste and the rehabilitation of the 1.3 km of road leading to the landfill in accordance with the Agency's Environmental Regulations.

The conditions:

- The potential environmental impacts of the planned waste management activity shall be mitigated by adopting the measures detailed in the Mitigation Measures section of this IEE.
- PADF shall adhere to the proposed LAC guidelines for small scale road rehabilitation activities and should ensure that they are implemented

- Local implementing partners (sub-grantees) will be made aware of, and made responsible for, adhering to the environmental mitigation and monitoring requirements presented in this IEE.
- Funds shall not be used for the development and use of new dumpsites other than those officially designated by the GOH.
- During the first week of the activity, PADF, the MEO and/or the CTO shall visit the site of the Truitier landfill to assess the initial conditions (physical, environmental etc.) of the road to and within the landfill and will document said conditions. Unacceptable environmental and physical situations, “hot-spots” or other problem locations will be identified during that visit. Photos of these potential environmental hazards shall be taken and included in the project files.
- This IEE only covers those activities outlined in the unsolicited proposal. Activities different from those presented in the proposal will require an amended IEE.
- PADF will conduct an evaluation of effectiveness and appropriateness of the environmental mitigation measures in all phases of this waste management and road rehabilitation activities, and make appropriate recommendations for any needed changes. The evaluation should be conducted and a report submitted to the MEO for review by the third week of October 2004. The MEO is permitted to revise mitigation measures as a result of spot checks and/or the recommendations of PADF.

INITIAL ENVIRONMENTAL EXAMINATION

PROGRAM LOCATION: Jamaica

PROGRAM TITLE: Development Credit Authority (DCA) Activity in Jamaica (with National Commercial Bank Jamaica Limited - NCB)

LIFE OF PROGRAM (LOP): 2005-2012 (7 years)

LOP FUNDING: \$ 250,000 (from USAID)
\$5,000,000 (Total Loan Portfolio)

IEE PREPARED BY: James Burrowes
(Economic Growth)

RECOMMENDED THRESHOLD DECISION: Categorical Exclusion/Negative Determination (with conditions)

CONCURRENCE

I have reviewed the above statement and concur with the recommended Environmental Threshold Decision.

Karen Gayle 2/22/05
 Karen McDonald-Gayle (for)
 Mission Environmental Officer
 USAID/Jamaica

for Mike Donald, 2/10/05
 Mike Donald
 Regional Environment Advisor
 USAID/Guatemala

MISSION DIRECTOR'S DECISION

Approved: *[Signature]*
 Karen D. Turner

Date: *2/22/05*

LAC BUREAU ENVIRONMENTAL OFFICER'S DECISION

Approved: _____
 Victor Bullen

Date: _____