Security Issues Re: USAID Haiti: Improved Cooking Technology Project and Actual Current Ecological Cooking Solutions in Haiti Now Being Implemented

by Kevin Adair, President of Fuego del Sol S.R.L. ("FdS") December 1, 2011

Re: www.fbo.gov/index?s=opportunity&mode=form&id=23065ff30bd15dceffe3450765ee63e4&tab=core&_cview=1

The United States Agency for International Development (USAID) has a 50 year history of delivering aid from the people of the USA to global citizens in need. USAID has worked in Haiti improving the lives of the most impoverished families in the Western Hemisphere. USAID has assisted millions through targeted programs including: reforestation, disaster relief, medical services, housing initiatives, and in depth analysis of complex problems toward generating consensus among the world's experts and coalitions among aid organizations.

Based on careful review of SOL-521-11-000007 (and its supporting materials), USAID is at a crossroads. The language of this RFP is self-contradictory and reveals two competing factions within USAID. One faction within the agency supports ecological and sustainable cooking technologies. However, a competing USAID faction is now advocating for the agency to divert from USAID's sustainable development history. The counter-productive faction is working against all USAID research and prior Haiti policies, by working to promote the subsidized introduction of Liquid Propane Gas (LPG) in Haiti with potentially disastrous consequences. Contrastingly, the ecological corporation, Fuego del Sol, is now implementing eco-cooking solutions in Haiti.

USAID RFP: SOL-521-11-000007 contains dangerous and potentially terrorist-supporting action which runs counter to the legal requirements of the same RFP. Under Section H.13 of this RFP, applicants are required to report and address Haiti security threats, and under H.7, to report issues regarding facilitation of terrorism. As a potential contractor under this RFP, Fuego del Sol is obligated to report on concerns relating to these provisions.


Photos: Fires, civil unrest erupt after Haitian election results

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DECEMBER 8, 2010

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Protesters stand next to a burning barricade during a protest following presidential elections in Port-au-Prince December 8, 2010.

Photograph by: Eduardo Munoz, Reuters

The FBI / Justice Dept. define **Domestic Terrorism** as: "The unlawful use of *force or violence*, committed by a group(s) of two or more individuals, against *persons or property* to *intimidate or coerce* a government, the civilian population, or any segment thereof, in furtherance of *political or social objectives*."
--U.S. Justice Department, FBI, *Terrorism in the US, 1994*.

Nefarious elements in Haitian society see fuel as a potential tool of destruction to use during the frequent times of civil unrest. Unscrupulous political elements pay Haitian youth to create upheaval and then attempt to cast blame against competing political interests. This example happened less than one year ago and was one of many. Most unrest events in Haiti are not reported by the international media, and it can be dangerous to photograph rioters.

International efforts have led to major demonstrations when Haitians learned that they could be dependent on imports forever. In June 2011, 8000 Haitian farmers and supporters demonstrated against the "gift" of 475 tons of hybrid seeds from Monsanto. The Haitian people did not want to be dependent on buying future seeds. (www.huffingtonpost.com/beverly-bell/haitian-farmers-commit-to_b_578807.html) USAID's RFP would build LPG infrastructure in Haiti and subsidize LPG initially, creating long-term dependence.

LPG stoves are 5.5 times more expensive than efficient wood stoves. Please see the USAID RFP's Nexant Table 4 included here: The RFP requires actions which the content of the same RFP specifically recommends against, "Even with a heavily subsidized price for purchasing tanks, **LPG will not be a viable option for many Haitians due to unstable incomes and perceived safety concerns**." –Annex B, #2, page 14. The RFP (B.1) requires, "Support and development of

Institutional Stoves: Kg of Fuel Comsumed per Kg of Food Cooked							
Stove	Traditional Recho Fer	Prakti Orka Wood	Colgan	Prakti Orka Briquette	3 Stone Fire	Winner - LPG	Recho Kreyol - Gaz Blan
Fuel Type	Charcoal	Wood	Wood	Briquettes	Wood	LPG	Kerosene
Test #1	0.184	0.220	0.136	0.187	0.585	0.053	0.137
Test #2	0.184	0.191	0.205	0.221		0.076	0.061
Test #3	0.218	0.119	0.143				
Test #4							
Food Cooked (Kg)	28.8	33.1	25.4	27.0	23.8	18.6	17.0
AVERAGE (Kg fuel per Kg of food)	0.195	0.177	0.162	0.204	0.585	0.065	0.099
Standard Deviation	0.020	0.052	0.038	0.024		0.016	0.053
Coefficient of Variation	10%	30%	23%	12%		25%	54%
Wood Saving % (3 Stone Fire base line)		70%	72%	100%	0%		
Cost of Fuel Per 50Kg of Food cooked (aprox. 150 meals)	$5.08	$0.79	$0.72	$2.55	$2.61	$4.05	$4.46

Table 4: Institutional stoves (wood, charcoal, briquettes, LPG, kerosene)

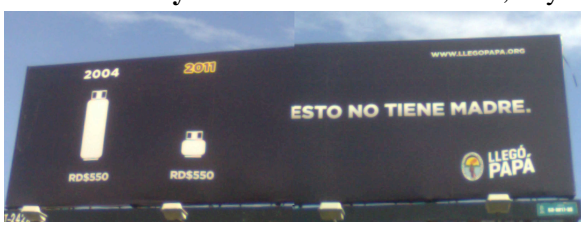
businesses in the production and distribution of improved cook stoves **and LPG stoves**." This dichotomy is not in the best interest of the Haitian people nor the US, but only in the best interest of the LPG industry. The Nexant Report's interior states, "For these most vulnerable groups, a high-quality, affordable improved charcoal stove is likely the most viable short- to mid-term alternative." However, the conclusions of the Nexant study contradict the study's own internal content by recommending USAID subsidize LPG introduction in Haiti.

The baseless conclusions of the RFP's Nexant Report differ 100% from all previous research and USAID policy. The April 2007, comprehensive 129-page study, **USAID HAITI: Environmental Vulnerability in Haiti, Findings and Recommendations** (Smucker, et al) repeatedly and specifically discourages subsidizing LPG, and other petroleum products in Haiti. "**Imported propane gas (LPG) remains the most expensive form of cooking fuel in Haiti.**" (p.102) "It is important to promote alternative [solar, wind, etc.] fuels. [But], for at least the next 20 years, wood charcoal will [likely] continue to be the fuel of choice for the vast majority of Haiti's urban population. Clearly, if fuelwood and charcoal could be managed to promote soil conservation, the potential payoff would be highly significant to the Haitian economy as well as its environment." Page 107: "According to data from the U.S. Energy Information Agency in 2002, **Haiti imports all of its petroleum fuels**. In 2002, Haiti consumed more than 12,000 bpd of petroleum products. Some 35 to **50 percent of Haiti's export-generated foreign currency is spent each year to cover the costs of petroleum imports**."

The 2007 USAID report's 20 year plan (p. 129) states, "Investment in the energy sector should include emphasis on improved cooking stoves, more efficient technology for charcoal manufacture [and] expansion of tree planting for the production of charcoal as a renewable resource." Haiti's Charcoal costs have risen since the January 12, 2010 earthquake, but USAID should not support the three expensive nonrenewable cooking fuels: LPG, kerosene and traditional charcoal cooking (see Nexant Table 4 above). Most importantly, USAID should not exacerbate Haiti's hardship of exporting half its foreign currency every year to finance petroleum imports.

The current RFP (B.2.N.) requires "Approximately 9,450 food vendors …switched to LPG." The technology recommended in this RFP is a small light-weight propane stove that is currently absent from Haiti. This LPG stove is impractically small for Haiti's traditional fuel-intensive cooking methods, but it is capable of devastating explosions if misused. The LPG micro-stove will have an extremely low perceived value for cooking, especially if the price of the stove is subsidized or the micro-stoves are provided for free. Importing ten-thousand of these micro-stoves to Haiti would be a huge security risk. The less someone pays for a technology intervention, the less that product is valued by the recipient. The subsidization of LPG as required by this RFP will violate USAID's stated charter: "To avoid inadvertent harm to the people we are trying to help." (USAID 5/2006) The fact that the conclusions of the report differ so dramatically from the content of the report needs to be reviewed: The best interests of the Haitian people (and the safety of Americans working in Haiti) may not be the main goals of this proposal. Omitting the actual results of the study from the study's conclusions is not simply a harmless oversight, but could potentially lead to dangerous outcomes. USAID's intention to base its actions only on the study's conclusions, rather than the actual research data, could lead to increased risk of physical harm to Americans working in Haiti.

FdS interviewed Haitian nationals and international aid workers living in Haiti for their opinions on the risks of introducing subsidized LPG as mandated in this RFP. **All respondents stated that they thought the micro-stove was dangerous**, impractical and unnecessary. The small tanks run out of fuel too quickly. Everyone interviewed agreed that the mini-tanks were more likely to be sold by recipients than used for cooking. Interviewees also voiced the strong possibility that the stoves would be used to cause explosions, either intentionally or by accident. **All Haitian people interviewed in the Nexant study voiced similar safety concerns for LPG stoves in Haiti, but this fact was omitted from the study's conclusions**. In the DR, any reduction of propane subsidies has caused major public strikes and street protests. In the DR 2012 presidential election, the fact that propane subsidies have been reduced by the current administration is touted on billboards by the opposition party candidate. If LPG is subsidized by the US and the program is later cut, Haitian anger could be directed specifically toward



Americans in Haiti. These issues can be verified through exploration of the fbo.gov link in this document's title.

Leakage. The RFP p.8 states, "Carbon Financing can be developed around the reduction in CO2 emissions from fuel-efficient stoves, or switching to cleaner fuels such as LPG." However the final phrase of that sentence was added as an unsupported inaccuracy. The CDM defines "Leakage" as any, "Increase in emissions outside the project boundary that occurs as a consequence of the project activity's implementation." So all of the fuel and carbon expended for the complicated process of introducing LPG infrastructure into the many regions of Haiti, where no LPG infrastructure exists, would be counted against any carbon savings in a CDM or Gold Standard carbon credits application. Leakage would occur from any Haiti LPG subsidization. Currently, LPG is primarily a fuel for flex-fuel gasoline vehicles. Reducing the cost of LPG would increase driving, increase the already terrible Port-au-Prince gridlock and dramatically increase carbon emissions. The USAID recommended LPG intervention would cause global harm through increased carbon release. It would never be carbon credit eligible.

Contamination. Carbon experts contacted by FdS voiced the additional concern that subsidization of LPG in Haiti would contaminate all baseline data collection, and remove the possibility for other fuels and other developmental projects receiving future carbon financing. LPG introduction, if it were country wide, could destroy the carbon credit value of Haiti. LPG would not generate the carbon credits, but if LPG introduction were successful, it would contaminate the market for anyone else that wanted to generate carbon credit, because replacing LPG with other fuels does not tend to achieve credits. Once the LPG infrastructure is there, LPG is sufficiently efficient to cancel out any sustainable project's carbon value. The current USAID RFP could invalidate the potential carbon credit value of Haiti, removing one of Haiti's developmental advantages.

In addition to these serious security, feasibility, and environmental issues, the RFP raises questions regarding its own compliance with USAID regulations for introducing sustainable solutions in the countries that are provided assistance. H.18 and H.28 of this RFP indicate that USAID must introduce exclusively ecologically sustainable interventions in other countries. As stated in Section H.18: "The Foreign Assistance Act of 1961, as amended, Section 117 requires that the impact of USAID's activities on the environment be considered and that USAID include environmental sustainability as a central consideration in designing and carrying out its development programs. This mandate is codified in Federal Regulations (22 CFR 216) and in USAID's Automated Directives System (ADS) Parts 201.5.10g and 204 (http://www.usaid.gov/policy/ads/200/), which, in part, require that the potential environmental impacts of USAID-financed activities are identified prior to a final decision to proceed and that appropriate environmental safeguards are adopted for all activities."

Since LPG gas is not produced locally, and there are no plans to produce it locally, it appears that LPG support / subsidies / infrastructure development in this RFP do not meet the sustainability test required by USAID. As a potential USAID contractor, FdS is required under this RFP, Section H.18 to address this issue:

FdS recommends that USAID follows USAID goals: http://www.usaid.gov/policy/ads/200/204.pdf
"Environmental sustainability is integral to USAID's overall goal, and therefore must be mainstreamed into all activities to achieve optimal results, to avoid inadvertent harm to the people we are trying to help, and to prevent wasting taxpayer dollars. To meet this goal, USAID incorporates environmental considerations into results-based planning, achieving, and assessing and learning." --USAID 5/11/2006

USAID should abide by the EPA's definitions: http://www.epa.gov/sustainability/basicinfo.htm#sustainability
"Sustainability is based on a simple principle: Everything that we need for our survival and well-being depends, either directly or indirectly, on our natural environment. Sustainability creates and maintains the conditions under which humans and nature can exist in productive harmony, that permits fulfilling the social, economic and other requirements of present and future generations. Sustainability is important to making sure that we have and will continue to have, the water, materials, and resources to protect human health and our environment."

FdS further recommends USAID make its decisions for Haiti more closely match its own noble principals and resist any industry bias to provide equal opportunities to all viable technologies for Haiti's crucial development.

Fuego del Sol is uniquely qualified to immediately implement legitimately sustainable ecological cooking technologies for Haiti. Fuego del Sol S.R.L. is a Dominican triple-bottom-line corporation, ecological solutions manufacturer serving Haiti and the Dominican Republic. FdS is a partnership of Americans, Haitians and Dominicans working together to create positive change. FdS is in the Partnership for Clean Indoor Air and has applied for the Global Alliance for Clean Cookstoves. FdS has partnered with one of the most respected Dominican ecological/social development nonprofit organizations: Grupo Jaragua (GJ), working both sides of

the Haitian border. FdS pioneered supporting DR / Haiti eco-development through GeoTourism in this region.

Anse-a-Pitre ("AaP"), Haiti provides the optimum scenario for sustainable introduction of the best combination of ecological cooking technology (as selected by the community leaders in the FdS / GJ Eco Test Kitchen.) AaP shares a Sister-City agreement with Pedernales, DR. Haitians and Dominicans travel back and forth between the two cities everyday. The infrastructure of the DR, including the near-by port of Cabo Rojo can support AaP's industrial development. AaP is a major source region for illegal charcoal entry into Haiti. Aap development will affect illegal charcoal supply throughout Haiti.

The current Eco Test Kitchen technology combination features three complementary products: the Global Sun Oven (which was tested by the Dominican National Energy Commission [CNE] and certified as a beneficial renewable energy product under Law 57-07), the Stovetec efficient household woodstove, and the Stovetec "Colgan" Industrial Stove. Both Stovetec stoves were rated tops in their categories, saving up to 72% of fuel over traditional Haitian cooking methods and saving 82% over the cost of cooking with propane and other fossil fuels. (USAID/Nexant). The feedback loop allows for upgrading the technology when improved options are imported or developed, including locally produced renewable charcoal and/or recycled paper briquettes. FdS and GJ have developed the eco-cookstove introduction and adoption process which involves the entire families in the process of obtaining the integrated cooking system. Eco-stoves are not provided for free; recipients must work, pay, train and agree in writing to use each stove before they can receive it. Micro-financing assists in affordability and verifies compliance with the usage agreement. Where necessary, tax-deductible donations (from our partner US NGO, Solar Household Energy-SHE) subsidize the costs of the eco-stoves, but FdS is working, by manufacturing eco-stoves in the local FdS Fair-Trade-standards factory, to lower costs of delivery. FdS is the first company to be registering for the Gold Standard Methodology (GSM) in Haiti/DR to generate cookstove carbon credits so that, for the long-term, donations will not be required.

FdS is ready to grow its network with any solution provider that is open to ecological development. This USAID RFP is specifically open to biomass and other technologies. FdS is ready to work together with global partners to promote the renewable, sustainable, affordable, multiple-technology solutions that have the best chance of cultural acceptance in Haiti / the DR, with quick implementation, system safety and complete program integration.

Great care and planning are required in the introduction of new cooking technologies to local communities. According to Appropedia, the Sustainability Wiki, the most difficult problem to overcome when introducing ecological cooking (particularly solar, but the concept is expandable to address all forms of ecological cooking) to new populations is "Cultural resistance; people have used wood to cook since the inception of the domestic fire. Acceptance of so radical a change as cooking with solar energy can only happen where there is real need. With ever-increasing desertification, and population increases, the need is growing rapidly."

The introduction / adoption method developed by FdS and GJ is immediately transferable to expand / scale this program through the Haitian Southern Peninsula and DR border and then beyond. The program connects with the existing infrastructure of community centers, community organizations, and active NGOs in the region.

With each new community the FdS model engages the existing structure, and celebrates the existing community building, natural resource management, endangered species support, reforestation, agro-forestry, business clusters, micro-industry, micro-lending, health services, local schools, etc. The best way to overcome the initial cultural resistance is to introduce the new cooking system through an existing community network structure. Existing leaders of the community should be identified and enlisted for the initial training sessions. Since most cooking in developing countries is performed by women, choosing strong women for the initial training sessions is crucial. Access to the technology is also important and entrepreneurial efforts are encouraged and supported.

The pilot study for this ecostove introduction began in 2006 through the GJ community center in Oviedo, DR. A community leader, Olga Vidal, was selected for the position of head solar chef, since she was already running a successful cake bakery before the ecostoves were introduced. Olga was trained in the specifics of the ecostoves and encouraged to experiment with various cooking techniques. The ecostoves were first put into use in the community center cooking food for the volunteers and visitors. Olga led the new cooking process and trained others in the correct techniques. In exchange for her work in the program, Olga was granted cooking time in the ecostoves in the afternoons, after the community meals had already been produced. Olga provided the ingredients for baking cakes in the Sun Ovens, and then was able to keep all the profits from selling the cakes that she made. Through additional hours of eco work, Olga earned her own ecocooking system to keep. The pilot study was successfully completed. This program is fully up and active, and now in the expansion process.

Personal investment of the community leaders, and each recipient is key. Many efforts to introduce ecostoves have failed due to a combination of poor technology and to the stoves being supplied for free without the recipients being properly trained or feeling invested in the process. In creating this program various methods and metrics are being developed in order to customize the program for various recipient populations and situations. It is also crucial that the community centers, schools, and NGO headquarters in each new community are the first to have their staffs trained and then put new ecostoves in visible use for all cooking needs. If community members see ecocookers in use by the people who have the money to use any cooking method, they will know there must be a reason that the developmental / community groups are choosing to cook with the new methods. Local community groups can be provided with the incentive that they will have the ability to choose some of that community's first new stove recipients if they cooperate with the program. The program provides the additional benefit of hiring community center members to gather baseline information, which can be followed by them being hired for the introduction and adoption program. Use of the new technology in the centers makes volunteers there eligible for this income generation opportunity. When one local community center agrees to the process ahead of other local centers, friendly competition can bring the others aboard the program as well.

Once the financial commitment and work-time requirements are established in order for a family to acquire their own ecostove system, multiple family members can work toward this goal together. It is highly recommended that the men in the family participate to a certain extent in the stove earning process: Men in the family have been shown to be the most difficult to convince that a new cooking method is actually an improvement for their family. The best efforts of the women in a family can be thwarted by the man of the house complaining that the food tastes different than traditional cooking methods. The fact is that ecological cooking *does* taste different from the heavily smoked flavor of inefficient charcoal cooking. This difference should be introduced to all family members early in the process. In families where the husband is working full time, his participation in the program can be difficult to achieve. One potential solution is offering 'Family Days' at the community center on Sundays. For these days, food will be provided by the center to entice entire families to come. That food will, of course, be cooked with the ecological technologies. Such events can give the men in the family frequent exposure to the new style of ecologically cooked food, time to receive information regarding how the ecostove can save the family money, and the understanding that reduced wood-gathering can allow the food preparers to do additional income-earning activities including handicrafts. The men of the family will also have the option of providing some hours of volunteer work to the center. Can the father take a turn reading to community kids during children's hour? Can the father serve as umpire to a family baseball game that is part of the day? Is there a specific task that can benefit the center that the assembled group of men can perform for the center during the time that the food is cooking? This builds communities and increases familiarity with ecocooking technologies.

Haiti needs innovative eco-solutions that save people money without making Haiti more dangerous for Americans and international aid workers. Access to the infrastructure of the DR, premiere cooking technologies and international development focus is the multi-country solution that will bring real permanent help to Haiti. Successful ecostove introductions that have generated carbon credits (i.e. www.helpsintl.org in Guatemala) generate success through immersion and integration into local societies to learn the local cultures, customs, and cuisine. Full immersion / embedding into local communities generates mutual trust and communication. FdS President, Kevin Adair, has resided in the DR and Haiti since 2005, working to implement the best ecological technology solutions. Kevin was previously active in the Chicago ecological community for over 20 years. FdS is permanently dedicated to implementing multi-country solutions for Haiti / DR ecological development. The Eco Test Kitchen is open for visitors, international aid is needed immediately and more details are available.