Engagement of the Cape Verdean American Diaspora in Assessing Population Needs after the 2014 Fogo Volcano Eruption

Project Report

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Background

On 23 November 2014 there was a volcanic eruption on the island of Fogo in Cape Verde, which affected approximately 200 households corresponding to a population of 1,498 people. The eruption continued for approximately 3 months and it is considered the largest eruption by volume, and in terms of damage, on the archipelago for over sixty years. Most damage was caused by lava flows advancing into populated regions; numerous buildings, homes and roads were destroyed. In total, three villages have been abandoned and hundreds of residents have been evacuated and sought refuge in three camps (Mosteiros, Achada Furna and Montegrande), in schools, or in the Santa Catarina and São Felipe communities. There were no injuries or deaths, but the evacuated villagers lost homes and possessions. As a result of the situation, the Cape Verdean diaspora in the United States joined to support volcano victims. It is to be noted that approximately 77,000 residents with Cape Verdan lineage live in New England according to the 2010 American Community survey, making it the largest Cape Verdan diaspora in the United States. The strong social networks between members of the diaspora and ties to the country of origin generated a rapid mobilization of resources with gathering of supplies such as clothes and food and fund raising efforts in support of the affected communities. To better understand the needs of the affected communities the diaspora engaged in a population needs assessment with technical support from the Harvard Chan School of Public Health.

The aims of the assessment were:

1. Describe the population’s opinion on the emergency response to develop recommendation for future emergency planning efforts,
2. Describe current needs, especially of segments of the population particularly vulnerable to the consequences of the emergency situation,
3. Identify sources of information and opinions on such sources,
4. Gather opinions on priorities for recovery efforts.
The role of diaspora during and after crisis situations

When disasters strike diaspora groups are a crucial lifeline to access those in need, by facilitating the spread of information, organizing fundraising activities and supporting the affected communities with volunteer work and remittances. Although there has been a great deal of work in studying the contribution of the diaspora for the sustainable development of their countries of origin there has been little discussion about the impact and role of the diaspora in crisis situations. During crisis situations the diaspora has been described as an “invisible first responder” for its unstructured and frequently under-recognized role in the response and recovery efforts. Members of the diaspora have a strong role in providing support to populations affected by emergency situations in their country of origin. Their role should be integrated with efforts driven by emergency situations because of the following factors: 1) they are directly and personally affected by the suffering of family members and friends living in their community of origin, 2) they are motivated by a feeling of loyalty and solidarity to their country of origin, 3) they have an information advantage with respect to other organizations due to knowledge of the language and local dialects, and understanding of local political, economic, cultural and environmental context, 4) they are networked with easy access to resources within their network, 5) they have an economic interest with remittances and investments made in the country of origin, 6) they are trusted by their community and can travel to the area without assistance. The diaspora understands local needs and is in a privileged position to evaluate the situation on the ground, contribute to the needs of the most vulnerable and provide recommendations for effective response and recovery efforts led by international organizations as well as local governments.

This project is an example of how the diaspora can be mobilized in population’s needs assessment efforts after the occurrence of an emergency and how a collaborative effort between an academic institution-providing technical support, and organizations of volunteers within the diaspora network-providing field work, can turn into a successful and cost-effective way to identify population needs and priority efforts during the recovery phase.

Methods

A collaboration was initiated between community based organizations (CBOs) and associations of volunteers in the U.S. Cape Verdean diaspora and the Harvard T.H. Chan Preparedness & Emergency Response Learning Center (H-PERLC) in December 2014. Survey questions, previously used by the Preparedness & Emergency Response Learning and Research Centers to conduct population surveys after the occurrence of emergencies in the United States, were quickly adapted for this emergency situation. Questions were first translated from English into Portuguese, then from Portuguese into Cape Verdean creole and finally back-translated into English. This process was completed three times to validate the translation. Volunteers from the Cape Verdean diaspora were recruited by the CBOs to field the surveys in the affected areas. These volunteers were members of the diaspora travelling to Cape Verde for a short period of time who used their personal networks to engage local Cape Verdeans in the data collection process. Instructions to guide the volunteers in the administration of the surveys were developed by the Harvard team. The survey was implemented between February 2015 and April 2015. A brief pilot phase was conducted in February on 23 subjects; few changes were made to the survey prior to its full implementation mainly related to editing of misspelled words. A convenience sample of households from the affected population was selected by the volunteers. One person from each household, age >18, was asked to complete the survey on behalf of the household members, the name of the person completing the survey was registered and a consent form signed by the respondent. Subsequently the consent form including the name and signature was detached from the survey so to generate de-identified survey data for the statistical analysis. Survey questions focused on opinions on the emergency response and evacuation process, current logistical needs, housing situation and needs of the most vulnerable groups, opinions on the priorities in recovery efforts, risk perception, health concerns in the affected community, access to information, trust in the channels of communication and opinions on the role of the agencies engaged in the recovery efforts. Data analysis was performed by the research team at the H-PERLC. In absence of an IRB process in Cape Verde the project was submitted for consideration to the Institutional Review Board (IRB) at the Harvard T.H. Chan School of Public Health that deemed the project to be exempt. Descriptive statistics were performed using the statistical package STATA version 13 for data of quantitative nature, while for the qualitative
data the software NVivo version 10 was used for the analysis. Results were interpreted with support from the diaspora organizations involved in the project.

Results

Sample characteristics

Four volunteers administered the survey going door to door to the affected households. A total of 149 surveys were completed, representing approximately 70% of the evacuated households. Of these 149 surveys 17 were dropped from the analysis because name and age of the respondent were the same suggesting the survey was completed by the same person twice, leaving 132 surveys suitable for data analysis. A sensitive analysis was performed including and excluding the surveys being dropped and results did not differ substantially. Fifty-eight percent of surveys were completed by women, the distribution by age of the respondents is as follows: 18-25 (18%), 26-35 (23%), 36-45 (20%), 46-55 (12%), 56-65 (19%), >65 (8%).

Opinions on the emergency response

Ninety-seven percent of respondents reported that the community did not have enough time to evacuate. More than 90% thought that the community was not given the means to evacuate. Only 4% thought that those in need of extra care during the evacuation process such as elderly, children and people with disabilities, were given adequate support. Most (84%) felt that alternative housing was not provided in an adequate manner. Only few, approximately 10%, believed that food and drinking water were provided to the population in a timely fashion at the time of the emergency. Opinions on the prompt availability of face masks was discordant with 32% saying they were provided in a timely fashion, 43% disagreeing with such opinion and the rest (25%) not having an opinion on the matter.

Current needs

Housing situation: The majority of the respondents (69%) did not feel safe in the current housing situation. When asked for the reasons most respondents reported that the houses lack of infrastructure and appropriate hygienic conditions, including absence of water tanks and sanitation. Many reported that houses do not have windows, adequate roofs and doors and that dust and rain can easily get in.
**Vulnerable groups:** Children, the elderly, and people with disabilities were identified to be the top three most vulnerable groups in need of support. Women seem to be more concerned than men with the special needs of the elderly and children in the current situation. This difference can be explained by the fact that women are typically primary caregivers of these age groups and have good understanding of their needs.

**Priorities in recovery efforts**

Housing (91%), medical care (52%), and schooling (38%) were voted as the 3 top priorities for the reconstruction efforts. When asked about the humanitarian aids provided by international groups, over 90% said they were grateful to have received so much attention from the international community. However, more transparency and organization in the distribution efforts of such aids was reported as necessary. When asked to add any comment on the current situation and what could be done to go back to a “normal life”, respondents highlighted the importance of creating work opportunities. As shown in Figure 1 below describing the most frequent cited words “trabalho” which means “work” was one of the most frequent. The necessity to work their farm land which is not accessible due to the lava was seen as a priority to provide immediate support to their family as well as a key factor in light of future development efforts. Respondents also demanded for “honestidade” which means honesty and more “atenção” which means attention from governmental officials. Other cited words were “condições” which means situation and “habitação” which mean house, while talking about the importance of improving the current condition and housing situation of the community as a whole. Respondents rarely speak in first person and always refer to the community or use the pronoun “nossa” to emphasize the importance of re-creating the lost sense of community and not being separated from each-others.
Health concerns

When asked about the most frequent health issues affecting their community 60% reported sleeping problems, 8% anxiety, 5% respiratory problems, 5% depression, 5% said they did not know and the remaining 17% cited other issues of which many reported “stress”. To be noted that some respondents were concerned with the psychological impact of the emergency situation on children.

Risk perception

Household respondents believe that the community is not particularly concerned with the risk of future eruptions; only 20% believed that people in the affected community have now a higher perception of the risk of leaving close to the eruption area. The need of “going back to a normal life” and rebuild the infrastructure of the lost community as close as possible to the disaster area is seen as a priority. The sense of community is very high and undermined by the current displacement of households in various locations. Words such as “community” and “unity” were frequently cited by the survey respondents as important in the plans for the recovery process. Many have underlined the importance of including the evacuees in the decision process of how and where to rebuild the new community. The low level of risk perception should be
taken into consideration by governmental authorities in their risk communication strategy and rebuilding plans.

Access to information

Word of mouth through family and friends is still the most diffused means of communication (81%) by which people receive information regarding the situation; followed by radio (58%) and local television news (58%). Social media was reported as an important channel of communication by 16% of the population. As expected, younger households respondents, between the age of 18 and 35, were more likely to say that they used the Internet to receive information about the crisis compared to older age groups. Forty-two percent of the respondents reported that mass media did not report enough information about the crisis, 35% felt they had the right amount of information and 14% that they had too much information. Among the users of different channels of information, those using social media had the highest level of trust in their source of information and liked the fact that you can get information immediately from this source, local authorities were liked the most in the way they delivered the information, national TV was reported as the one having always new and up to date information, and information delivered by family and friends considered the most accurate. Figure 2 below present a graphical representation of such distributions.

Figure 2. Opinions on the delivery of information about the crisis situation by group of people exposed to the available channels of communication
Trust

When asked what organizations do the affected people trust in leading recovery efforts, more than 80% of the respondents said they trusted international organizations the most, followed by the national government (10%). In the open questions the need to include representatives from the affected population in the decision making process was seen as a priority. Respondents pointed to the need of developing reconstruction plans that rebuild the sense of belonging to the community and to generate work opportunities for sustainability efforts.

Strengths and limitations of the study

We recognize the following strengths and limitations in the conduction of this study:

- We decided to administer the survey in Cape Verdean creole because this is the language spoken by the affected community and the use of Portuguese could have caused barriers. However, Cape Verdean creole is not a language frequently used in a written form therefore the accuracy of the translation is difficult to assess. To overcome this barrier the survey was back translated into English several times and volunteers were available in the field to read the questions.

- We used a convenience sample strategy which may not be representative of the affected population. However, the survey was designed to be completed by “households” rather than individuals, similarly to a Census. Therefore we can consider the data provided by each completed survey as an affected household. With 132 surveys suitable for data analysis and approximately 200 households being affected we have a response rate of 66%, which is good enough to derive valid recommendations.

- Due to the emergency situation and lack of resources in the development of this project an in depth training of the volunteers administering the survey was not possible. To address this barrier we developed detailed instructions and limited the number of open questions in the survey.
Recommendations for recovery efforts

1. **Emergency planning:** Government officials should use this opportunity to identify lessons learned from the response to this emergency by developing an after action report that could inform future planning efforts for volcanic eruptions in the island of Fogo as well as other types of emergencies that may occur in the country.

2. **Immediate needs:** Immediate households’ needs should be addressed by building or installing water tanks in the evacuated areas and protecting the houses from rain and dust. Lack of sanitation is of particular public health concern in overcrowded households.

3. **Inclusion of principal stakeholders:** Representatives from the affected population should be included in the decision making process of the distribution of humanitarian aids and rebuilding of the lost community. A good representation of women should be included as principal stakeholders because of their understanding of the needs of children and elderly.

4. **Transparency in communication:** Transparency in the decision making process in regards to the distribution of aids and plans for reconstruction efforts needs to be part of the communication strategy to the affected communities aimed to rebuild trust in the affected population towards governmental authorities.

5. **Mental health assessments:** Sleeping problems should be investigated because a potential sign of post-traumatic stress disorder indicating a potential need for mental health support to the affected population.