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THE GUATEMALA EARTHQUAKE OF 4 FEBRUARY 1976: CASE STUDY OF A DISASTER RELIEF AGENCY'S OPERATIONS

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INTRODUCTION

In February 1976 the Brother's Brother Foundation (BBF), an international medical and disaster relief organization working in Guatemala since 1969, fully mobilized its resources to provide emergency relief and reconstruction assistance to the survivors of the earthquake of February 4.

The Brother's Brother Foundation was one of more than a hundred disaster relief agencies operating in Guatemala after the earthquake; the $ 1 million of aid provided by the BBF represents about one percent of the total relief sent to Guatemala. The BBF was involved in relief activities across the spectrum of needs: medical personnel and supplies, rehabilitative materials (food, tents, etc.) and reconstruction tools and materials. Further, the foundation operated both at the national and community level. Because its size, scope and locus of operation, the foundation is characteristic of many disaster relief agencies. A review of its Guatemala operation, including the administrative and organizational dimensions of the response, may prove helpful to other relief agencies as a source of information, criticism and recommendations for future efforts. To place this review in perspective, background material regarding BBF is included.

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BBF Background

The Brother's Brother Foundation began in 1958 as an international medical foundation providing public health services and instruction. After pioneering a number of smallpox irradication techniques – the founder of BBF developed the jet injector and smallpox dilution techniques – BBF shifted its main emphasis from West Africa to Latin America in 1964. Since 1965 it has assisted in the delivery of 10 million immunizations in eleven Latin American countries. The health ministers of several of these countries asked BBF to assist in disaster relief and rehabilitation programs and to expand its services to meet emergency needs. BBF responded to disasters in Peru 1970 (earthquake), Nicaragua 1972 (earthquake), and Honduras, 1974 (flood) with a supply delivery valued in excess of $ 1,200,000, including antibiotics, food, medical equipment, insecticides and vegetables and grain seeds for replanting.

Given this pattern of repeated responses to disaster situations BBF chose in 1975 to formally create a disaster relief division with four distinct functions: 1) research and planning 2) communication and coordination 3) mobilization and 4) review.

In 1969, BBF initiated its first health program in Guatemala, working with the Ministry of Public Health in a limited measles campaign. In 1972 and 1973, BBF joined with the Ministry of Health and local Rotarians in

organizing and financing the first national anti-polio program, protecting 80 percent of the children under five years of age. BBF also joined with Guatemala Rotary in distributing vegetable seeds to 10,000 peasant farmers and limited medical services in 1973, 1974 and 1975.

BBF in Guatemala: 1976

The BBF staff first heard of the earthquake through the news media at 7.30 a.m. on February 4, 1976 and immediately recognized the severity of the disaster, given the strength of the quake and the population density of the area. By mid-morning BBF staff had alerted its executive and disaster committees to an expected request from the government of Guatemala and suggested task assignments in preparation for a general mobilization of resources.

By 12.45 p.m., BBF established direct and radio communications (telephone lines were alternately disrupted or overloaded) with Guatemala through the wife of the president of Guatemala City's Rotary Club. She provided BBF with general geographic descriptions of damaged areas.

Around 1.30 p.m., the BBF conferred with Guatemala's ambassador to the United States, who made an official request for BBF assistance on behalf of his country. At that time, he was unable to give details of the actual situation. The ambassador expressed the view that the BBF might know better what was needed than he or his staff and promised to transmit up-to-date reports as the embassy would receive them.

During the next 18 hours, initial request lists (medicine, food, tents, etc.) from the Guatemalan government were received and indirect contact was established with the hastily reorganized National Emergency Committee of Guatemala (NEC) through the Rotarian radio contacts and the Guatemalan embassy.

At the same time, Rotary Guatemala established the Rotary Emergency Committee (REC) to provide assistance in the relief effort. With the approval of the NEC, this committee served as BBF's contact point in Guatemala. REC also organized itself and a women's auxiliary into several committees and task forces related to the specific needs: medical, housing engineering, sanitation, finance, cottage industry, public relations, agriculture and governmental relations, etc. This immediately assured the foundation of a broad level of voluntary but organized local technical expertise which was able to properly and precisely represent and advise BBF operations in Guatemala.

During the first 72 hours after the Guatemalan earthquake the BBF executive committee, disaster committee, staff and interested members had to determine the general needs of the Guatemalan people and the role the BBF should play in fulfilling those needs as quickly as possible. The BBF fully expected to enter a confused and fluid situation.

MEDICAL NEEDS

Confronted with 77,000–100,000 injured, over 1,000,000 homeless, facilities for one third of the 14,000 bed National hospital system destroyed or badly damaged and water systems damaged or disrupted for almost 2,000,000 Guatemalans, the Ministry of Public Health (MPH) was forced to expand upon the national medical preparedness plans and make a series of rapid adaptations to the critical situation.

Mobilization

The NEC and MPH immediately mobilized all available medical professionals and paramedical practitioners (over 7,000 of them) to treat the injured in established medical facilities and emergency clinics throughout the nation. The mobilization included the temporary closing of all health-related schools, and the organization of volunteer medical

brigades from the private sector and the schools of health professions.

Foreign Solicitation

NEC made immediate appeals for delivery of blood plasma, field hospitals, orthopedic supplies, anesthetics, etc. Within the first month, over 200,000 pounds of these supplies (including nine field hospitals), conservatively valued in excess of $ 5,000,000, were made available. Even though these supplies did not all arrive during the disaster period, the knowledge of their availability permitted NEC and MPH to use medical stocks already in the country on a more rapid and adequate basis. Over 85 percent of the medical supplies received from all sources were usable.

NEC also made a number of appeals for foreign medical staffs which could serve independently or as an auxiliary to established facilities. In response to these requests, almost 500 medical volunteers were sent from Argentina, Dominican Republic, Honduras, Mexico, Nicaragua and the United States.

Unfortunately, not all these groups were utilized to their maximum potential because of cultural, as well as, administrative problems. For example, congressman Kenneth Hechler of West Virginia, who made a personal survey of the Guatemalan disaster zone in mid-February, found that the US field hospital with 100 beds and 200 employees was treating only 3 patients because the appearance of armed Guatemalan guards at the gates seemed to frighten prospective patients away.

Scores of other unrequested medical volunteers also arrived from the United States. On the whole, they were not very successfully integrated into the relief system.

Public Health Measures

NEC and MPH undertook an immediate program to provide safe drinking water. NEC and other agencies under its guidance established hundreds of chemically-treated water distribution points and pushed the redrilling of water wells in the disaster sites. NEC and MPH also reinforced the national disease monitoring system under the guidance of the World Health Organization (WHO) and USAID.

For a short period after the disaster NEC and MPH debated the necessity of an immediate mass immunization campaign against typhoid. The NEC, composed largely of non-medical people, was asking for a national immunization campaign against typhoid. On the other hand, the public health officials and WHO opposed such a program, because the dry season made the transmission of typhoid much less likely. In addition, such a massive program would pin down a large portion of the already overworked medical staff and volunteer auxiliary in an expensive and slow needle-and-syringe campaign when these professionals were desperately needed elsewhere. After considerable discussions, it was finally decided to greatly reduce the scale of the proposed immunization effort and, in effect, to assign this operation a relatively low priority.

Long-Term Supplies

With 14 of the nation's 38 public hospitals and 27 of its 108 large clinics destroyed or badly damaged and the sewage systems in many towns out of commission, the need for long-term assistance in the rehabilitation and reconstruction of these facilities was of paramount importance.

MPH therefore approached international institutions such as the Inter-American Development Bank for emergency building loans and made appeals for grants and equipment to almost all possible sources.

The full outcome of these appeals remains incomplete as yet, but at least $ 40,000,000 in loans and $ 2,000,000 in equipment has been made available to MPH and sanitary departments around the country.

BBF'S MEDICAL PROGRAM

Medical Supplies

Based on previous experiences in Peru, Nicaragua, and Honduras, the BBF saw the need for orthopedic and surgical supplies and equipment for immediate use, as well as to replenish existing stocks as they were passed through the system. Other medicines, such as antidiarrhetics, respiratory medicines, and antibiotics would be required later for survivors exposed to the cold, dust and to the unsanitary conditions of the crowded refugee centers.

Within five days, the Brother's Brother Foundation had over 22,000 pounds of these supplies available for immediate shipment. As the foundation learned of the number of emergency field hospitals (nine in total) arriving in Guatemala, it chose not to solicit such equipment on an emergency basis.

Medical Personnel

If there was a need for emergency medical teams, it was essential that they be able to integrate into the existing systems as quickly as possible. Less than nine hours after the disaster, the BBF offered the Guatemalan ambassador in Washington, D.C., transportation by private plane and coordination for all Guatemalan medical professionals living or training in the United States who wished to return to Guatemala as volunteers for two weeks or more.

In this respect, the BBF believes that nationals are best able to treat their own people since they obviously know the language, culture, medical system, and given the small size of Guatemala, most of their medical counterparts in the country. BBF had undertaken a similar operation in Honduras two years earlier with great success.

Between February 5 and 12, the BBF received calls from 21 Guatemalan physicians who were prepared to leave at 24 hours notice. As events developed, the NEC and Ministry of Health chose not to fully activate the offer as their own medical teams were well organized and in operation, and hundreds of requested (and unrequested) medical professionals poured into Guatemala from several different countries and organizations.

Unfortunately, the BBF offer was either mistakenly publicized by the Guatemalan embassy in Washington, D.C. or misunderstood by other agencies. This resulted in hundreds of calls from well-meaning but unskilled volunteers across the country. For example, the Red Cross in New Mexico referred to BBF a 21-year-old female art student who spoke no Spanish and who had volunteered to work in Guatemala for the weekend. In a sense, however, this mistake had its benefits since it allowed BBF to serve as a lightning rod for these types of assistance offers, helping to free the overworked telephone lines and staff of the Guatemalan embassy and other agencies.

Public Health Measures

Through the Guatemalan embassy, the BBF offered the use of its jet injectors (20 in total) for mass immunization against typhoid or other feared diseases (e.g., measles) during and after the crisis. The BBF believed that if its equipment, along with some of its technical staff, were used, any proposed immunization program would be greatly accelerated. If a national campaign were to take place, even if medically unnecessary [1] as was the case in Nicaragua, 1972, it was wiser to expedite the program with the faster and cheaper jet injector.

In addition, the BBF delivered 3,600 pounds of calcium hypochlorite of sufficient potency to sterilize a minimum of 200,000,000 gallons of water, enough for 10,000 rural families for a year.

Long-Term Solicitation of Supplies

The BBF had an opportunity to use the disaster to mobilize medical resources (i.e. medical, dental equipment and vaccines) over the next several months which, while not being available or even necessary for immediate use in the emergency, would prove very beneficial in the future to the Ministry of Public Health, which was obviously going to be desperately short of funds and materials in the reconstruction phase. The Ministry of Health reported severe damage (25–50 percent destroyed) in 14 of the nation's 38 public hospitals including the largest, San Juan de Dios: this 1,200-bed facility was completely destroyed, as were 27 of its 108 major health centers.

Between April 15 and December 31st, 1976, BBF delivered enough permanent hospital equipment (hospital beds, X-rays, instruments, food carts, autoclaves, linen, etc.) for a 100-bed facility and 20 complete dental operatories with a used replacement value in excess of $ 200,000. Most of this equipment was donated by North American hospitals and private clinics, as they remodel and otherwise upgrade their facilities.

It should be noted that much of the equipment provided in the nine field hospitals immediately after the quake was less than standard (i.e. collapsible wooden cots, manual suction machines, etc.) because of emergency transport constraints and therefore was of limited or no value over the long term. This made the delivery of permanent medical equipment a separate category of significance.

REHABILITATION

As the reports of destruction continued to mount, it became obvious that there was a critical need to provide assistance to the general refugee population in terms of food supplies, clothing, housing, and reconstruction of commerce. As a medical foundation, the BBF would, of course, not be in a position to provide independently all such needed services because of its small staff as well as its primarily medical focus.

However, through the Rotary Emergency Committee and, later, Episcopal and Baptist groups, the BBF was requested to serve as a facilitator by providing refugee care supplies: food, tents, some medicines, reconstruction materials, and cash.

Within six months, the BBF was able to contribute and deliver $ 40,000 in cash, and over 400,000 pounds of building materials with a wholesale value of over $ 162,000. In addition, the BBF delivered a quantity of canvas tents, 110,000 pounds of prepared food and $ 145,000-worth of selected vegetable seeds.

REC Rehabilitation Program

The Rotary Emergency Committee (REC) was the largest recipient of BBF's rehabilitation supplies (some 90 percent of them) valued at about $ 450,000. It seems therefore worthwhile to explain some of the features of REC's approach and program.

On February 6th, REC was requested by the National Emergency Committee to assume major responsibility for the relief and later reconstruction of the San Pedro, Sacatepequez district (population 15,000–17,000) classified as 99 percent destroyed with 770 dead and 1,700 injured. The area's major source of income was cottage industry textiles, clothing and leather goods for the tourist trade, and small scale agriculture.

On February 7th, one day after it was asked to "adopt" San Pedro, REC representatives began to distribute locally acquired relief supplies (i.e., food, some medicines, clothing, agriculture, etc.) in the area and first met with local officials and other leaders of San Pedro to develop a systematic and comprehensive response.

The REC committees made technical and administrative decisions as required and in accordance with NEC guidelines and the wishes of

local leaders. Using local labor, over 2,000,000 cubic feet of rubble was cleared within a period of seven months and a number of major buildings completed; warehouses, schools, churches, and over 2,700 houses (240 square feet each) were built; thousands were gainfully re-employed in handicraft industries and agriculture, and over $ 500,000 of emergency housing and business loans ($ 1,000 maximum at 4 percent interest) from local banks were distributed throughout the area.

Immediately, the REC began to systematically take over "ad hoc" feeding and some medical responsibilities from NEC, the Red Cross and CARE. In addition, the NEC also handled the distribution of clothing, bedding, tents, etc., among the refugee population using its own volunteer staff and logistical system. Throughout this period the REC made successful appeals for assistance from Rotary Clubs worldwide, from the BBF and from companies employing, or in some way affiliated with REC members. REC received over $ 460,000 cash and $ 600,000 gifts-in-kind by January 1, 1977.

In addition BBF received $ 42,000 from REC generated sources (i.e., U.S. companies and Rotary Clubs) which were channeled back to REC as direct cash payments or purchases.

Reconstruction

Once the acute emergency phase had ended – the injured cared for, the dead buried and the destitute survivors provided with a regular flow of food, water, clothing, etc. – the emphasis shifted to the reconstruction of housing and the local economy. U.N. officials had estimated that one in twenty might have died if adequate shelter had not been provided by June, the beginning of the rainy season.

Aside from the immediate relief work, REC and volunteer university students from the capital conducted a general census (within a month of the disaster) to ascertain the characteristics and needs of the surviving population. The major finding of this census disclosed that over 80 percent of the remaining San Pedroeans were home-owners rather than tenants. Many hundreds of the tenants fled to the capital some 15 miles away having lost everything in the quake.

This surprising feature led REC-SPOL (San Pedro Officials and Leaders) to greatly curtail plans for a new rationalized street design for the larger towns. The vast majority of families insisted on rebuilding their homes on the only significant undamaged possession left by the quake, namely their small house lots. This, in turn, greatly complicated reconstruction plans, since each house had to be built separately, so as to fit each distinctly shaped lot.

REC assigned a full time administrator with engineering skills to live in San Pedro and guide the reconstruction process. In accordance with NEC, all able-bodied men were required to work in exchange for food, tools, and reconstruction materials. NEC also established rebuilding guidelines so as to minimize human casualties in future earthquakes. These guidelines included the replacement of traditional heavy Spanish tile roofing and mud adobe walls because of their tendency to crumble under stress [2]. Instead, NEC instructed all rebuilding programs to use lighter weight corrugated metal roofing and reinforced concrete or cement blocks. In addition, REC assigned volunteers on a daily basis to serve in medical, clerical and/or distributive units.

BBF RESPONSE TO REC NEEDS

Food

On February 5th, BBF was requested by NEC and REC to provide any and all quantities of prepared foods for immediate shipment. Within ten days, the BBF secured 110,000 pounds of the requested foods and began to process them through to Miami for shipment to Guatemala. In the interim, the NEC had completed a survey of undamaged food stocks within Guatemala

and of foods already sent by other sources. As a result, the NEC was able to decide to remove food as a top priority item. This, in turn, allowed the BBF to transport these supplies, already in the system, by sea rather than by air, greatly reducing freight charges.

The food items which thus arrived after the worst was over, were distributed to hospitals, orphanages, and schools. Some 71,000 pounds of food items were in cafeteria size containers. Some 36,000 pounds was candy distributed to children throughout the disaster area as a pleasant, if non-essential, commodity (largely during the Easter week in mid-April). This was a very symbolic time since national reconstruction had really gotten underway, providing for many religious analogies.

As in Honduras in 1974, the BBF insisted that all types of available foods should be specifically approved by the Guatemalan authorities before shipment, since they would be responsible for thcir distribution. This simple policy saved NEC, REC and BBF enormous amounts of valuable time and money. For example, one large food company offered BBF 820,000 pounds of canned food for immediate shipment. BBF contacted NEC, the Ministry of Public Health and REC about the possible utilization of this material. All three reported back to BBF that 90 percent of food was either unnecessary, given the level of current food stocks, or not suited to the Guatemalan peasant. Over 80 percent of the food offered was cream of mushroom soup, which, while having some nutritional value, was considered poisonous in the folklore of the Guatemalan peasant.

Furthermore, most of the refugee population was not accustomed to canned foods, and might open a can, eat a little one day, and eat the rest two days later, not knowing that without refrigeration it could lead to food poisoning. Therefore, the canned food supplies brought in by the BBF were distributed to mass feeding stations which had experience in handling canned food (such as hospitals). A California disaster relief agency picked up the remaining 750,000 pounds and delivered them to Guatemala one month later.

Reconstruction

On the morning of February 7, less than eighty hours into the disaster, the BBF was requested by REC to supply as much building material, roofing, and as many tools as possible for the San Pedro Project. Because BBF had never before undertaken a major rebuilding effort, some BBF members were hesitant, claiming a lack of material resources and expertise, even though many REC members were architects, contractors and civil engineers. Yet because BBF is headquartered in Pittsburgh, Pennsylvania, it was able to approach the area's metal industries and provide 90 percent of San Pedro's roofing needs with the help of those industries.

By February 20, they had donated, or offered at a fraction of the cost, to the BBF over 1,000,000 square feet of aluminum and steel corrugated roofing material (enough for 3,700 homes and other buildings) 1,400 hand tools (picks, shovels, saws, hammers, etc.) nails, electrical supplies, etc., with a normal wholesale value of $ 162,000. The BBF total purchase price for these items was $ 35,400. Some 75 percent of the transportation cost for these items to Guatemala was provided by the USAID.

BBF also enlisted the volunteer services of Church World Service's housing consultant and requested that an REC engineering representative come to Pittsburgh for inspection of potential roofing materials. The Church World Service consultant provided REC with additional building experience, and BBF with a monitor of building progress in San Pedro.

Aware of REC's immediate need for funds, the BBF gave the REC $ 6,000 to help to pay for rubble clearance. Later in March and again in June BBF donated another $ 33,500 cash for the REC general fund and reconstruction, including a designated $ 27,500 grant to build an artisan market in San Pedro, to serve as a workshop and display center for local handicrafts.

Agriculture and Commerce

In order to help the San Pedro population become self-sustaining once again, BBF supplied REC with $ 145,000 worth of vegetable, and some flower seeds which were distributed to small scale farmers throughout the area [3]. Since 1973, Rotary Guatemala, using their own expertise, had been distributing, and monitoring the use of, seeds donated through BBF.

The BBF also enlisted the help of volunteer agronomists from the H.J. Heinz Company and the export manager of Burpee Seed Company, himself a Guatemalan, so as to assure potency and suitability of donated vegetable seeds for the Guatemalan peasant.

REVIEW: MANAGEMENT

The BBF chose to confine its role to one of a facilitator providing funds, material, logistics, and technical expertise and quite naturally, leaving the main burden of organization and labor to the Guatemalans themselves. It was, indeed, a difficult, and at times an exasperating role, in which there was plenty of room for successes and failures. The major areas of concern can be classified as follows: 1) information and coordination; 2) controlled solicitation; 3) transportation; 4) internal controls and mobilization; and 5) periodic review.

Information and Coordination

Understandably, once a request for assistance has been made, the first and most important step of any disaster relief agency is to gather as much timely and accurate information as possible about the crisis area and the resultant needs. This gives the agency a greater likelihood of making proper decisions regarding the type, intensity, and timing of the responses.

In conjunction with this, it is essential to establish some type of information exchange and coordination with the host government and other relief agencies involved, so as to minimize unnecessary duplication and maximize the use of available resources. Generally this is done by the host government and, if necessary, a single international agency or a consortium which can advise and may assist in the delivery of needed resources to the people.

In the Guatemalan case, the BBF was able to intensify its traditionally good relationship with the Ministry of Public Health and Rotary, maintaining a constant flow of information and cooperation. The Rotary–BBF relationship was at times so close as to be considered almost symbiotic.

The need for immediate coordination and cooperation among prospective donors and recipients is of course a paramount concern in a sudden disaster situation. As a small organization – one of the more than 100 foreign relief agencies involved in Guatemala – BBF was in periodic contact with seven coordination and/or information centers:

(1) National Emergency Committee (NEC) of Guatemala; largely composed of military leaders and their allies loyal to the government.

(2) Various governmental ministries which, while loyal to the central government and often represented within NEC, were trying to reassert their authority and prerogatives once the crisis had become less critical.

(3) American Council of Voluntary Agencies of Foreign Service, Inc., New York, which served as an after-the-fact information gathering system.

(4) Office of United States Foreign Disaster Assistance (USAID): A State Department office with a capacity to direct all U.S. governmental relief. The Office also attempts to direct and assist the activities of U.S. private voluntary agencies using large amounts of money and materials to facilitate joint projects.

(5) Guatemala Survival Mission, Washington, D.C.: An ad hoc organization of university students in the Washington area.

(6) The Christian Pilots Association, United

States. The Pilots Association was requested by the Commandant of the Guatemalan Air Force to coordinate and inventory the inflow of air-lifted supplies from the United States, an activity also claimed in part by the Office of United States Foreign Disaster Assistance.

(7) A group of young Guatemalan nationals working in international agencies such as the Inter-American Development Bank.

Other coordinating and information-gathering agencies such as the United Nations Disaster Relief Office and the Organization of American States were contacted after the crisis period had passed.

Given the number of coordinating agencies, each with its own capabilities and perspectives, it is understandable how conflicting reports and evaluations might be circulated which blur, rather than clarify, a rapidly evolving situation. This was especially true as some of the foreign agencies attempted to impose their perspectives. For example, within the first week of the disaster, the BBF delivered an inventory list of medical supplies that were immediately available for delivery via private corporate aircraft. The Ministry of Public Health went through the list and chose the urgently needed items, with most of the other supplies to come by ship, and rejected some of them completely as already in stock. Three days later and just before the flight, the corporation donating the aircraft contacted one of the better known foreign relief coordinators and was told not to send the aircraft as it was no longer necessary. The BBF then had to explain to the Health Ministry that the expected flight had been cancelled. Guatemala's ambassador to the United States then called the company and made an official request for the aircraft's use. By now, the company, which had just been reported to have made some legally challenged international payments, refused, not wanting to become involved in potentially controversial international activities again. (The coordinating agency responsible later expressed its regrets to BBF for the misjudgement of one of its staff members.)

As another example, the BBF was asked by NEC to help provide the equivalent of a 400-bed field hospital along with some volunteer staff. The NEC felt the necesssity of replacing some of the other foreign medical groups and their own exhausted medical staffs for a two-month period. The Ministry of Public Health thought the request unnecessary. The BBF was accused by one of the foreign coordinating centers as having lied about the initial request because the center was simply unaware of the facts.

These and dozens of petty squabbles which do not include BBF are symptomatic of a situation in which there are many interacting organizations whose staff members may be individually on the verge of collapse or hyper-charged emotionally. They represent deficiencies which are very desirable to minimize in the future.

Further, understanding the enormity of the task, some foreign coordinating agencies attempted to restrict the number of relief agencies involved so as to reduce the overall work load. While the attempt to consolidate is at times desirable, it can lead to the exclusion of millions of dollars worth of valuable resources from the disaster area. Most agencies have their own cultivated constituencies, governmental and private. Efforts to overtly force a consolidation may disillusion them and significantly reduce or even end all disaster relief support in the future from these sources.

Controlled Solicitation

Once some sense of general direction of relief activity is established, it becomes necessary to collect the required resources with maximum speed. Funds are naturally a top priority because of the flexibility of their use.

Appeals for gifts-in-kind, whether labor, medical, construction, or material come second and must be carefully screened as to their value and suitability in the disaster area.

The most mentioned gifts-in-kind in a sudden disaster relief are medical supplies. There is a

great tendency on the part of many agencies to send all types of medical supplies as quickly as possible. Unfortunately, many of these supplies are outdated, unnecessary, damaged in shipment, already available or unmarked.

Given the fluid situation and 100 or more autonomous agencies involved in Guatemala, it is easy to see how supplies were needed one day and not needed the next. However, that is not to say that these duplicated supplies are without value since, when possible, they were sorted and put in storage until possibly needed at a later time. Because Guatemala is a relatively advanced third world country, the NEC was able to assign a number of pharmacy students to sort and label supplies.

The BBF sought to assure the quality of and necessity for all items it collected, purchased and sent to Guatemala. BBF therefore inspected all medical supplies before shipment, using only pharmaceutical houses and major distributors as sources. Furthermore, the BBF insisted that the Ministry of Health examine the lists of available supplies and make written requests for needed items.

Aside from the actual solicitation, the BBF encountered some problems of actually holding on to company supply commitments which had been already made. For example, two companies offered to BBF, in writing, over $ 110,000 worth of medical supplies and vegetable seeds, which the Ministry of Health and REC accepted immediately if delivery could occur within the next three months. The BBF immediately informed the companies about the acceptance but when plans for transportation were made, some two months later, both companies failed to honor their offer, explaining it as a misunderstanding. In fact, one of the companies had sold all of the proposed donation in the interim.

Transportation Logistics

Once requested supplies or human skills are obtained, it is essential to deliver these resources at the optimal time.

BBF and many other relief agencies encountered tremendous supply transportation problems by sea, land, and air. Ocean delays were often as long as six weeks once the material had arrived in port of entry because severe quake damage was done to Guatemalan port facilities and road systems. Air shipments were delayed by as much as two weeks, even though cargo capacity was increased by the use of aircraft from 30 countries [4].

Internal Control and Mobilization

As resources became available to the BBF, it was essential to expand both its administrative staff and information flow for the duration (February 4–March 4, 1976) of the acute crisis.

BBF utilized the services of 20 part-time volunteer clerical workers, who processed as many as 600 contributions a day (up from the normal 3 to 5 contributions a day) and handled in excess of 200 telephone calls a day.

Beyond the monitoring of potential donations of gifts-in-kind previously mentioned, the BBF staff had to keep updating its inventory lists and logistics reports continuously so that staff and trustees of the Foundation would be in a position to make appropriate, accurate, and timely decisions.

Periodic Review and Planning

Periodic program reviews with planning recommendations by disaster relief agencies and their authoritative peers (governmental, private, news media, etc.) are essential if such agencies are to continue to improve their performance levels and learn from experience. Unfortunately, many agencies fear that such evaluations might prove harsh, especially if the evaluators are in some sense competitors. At the same time, many outside observers are concerned that self-evaluation or evaluation by peer authorities would amount to veneer praises and not identify, or be able to cope with, obvious errors.

RECOMMENDATIONS

If there is an international appeal for assistance it is preferable that a single governmental agency within the disaster country provide the necessary coordination. Unfortunately, the scope of the disaster may be so monumental that the limited managerial resources of a given third world country may not suffice, forcing other agencies, both domestic and foreign, to join the coordinating effort. BBF, therefore, submits a series of broad, relatively simple recommendations for consideration by all agencies with potential involvement in third world countries.

Information and Coordination

(1) Disaster relief organizations must expand their reporting capacities to include all legitimate coordinating agencies so as to minimize duplication and misunderstanding.

(2) The number of coordinating (in-country as well as foreign) agencies should be reduced or at least specialized so as to minimize unnecessary duplication and misunderstanding.

This specialization might be done by designating an agency or sub-agency to deal with an area of particular interest (i.e. medical, reconstruction, loans, etc.), geographic area (i.e. Organization of African States might be responsible for coordination of resources from Africa) or type of institution (i.e., private, international, governmental, etc.) or any combination thereof.

(3) The smaller agencies must be in a position where they are allowed to discuss the pros and cons of each disaster country's request with the foreign coordinating agencies without the fear of arbitrary interference from the foreign coordinator. Otherwise, the smaller agencies may feel forced to withdraw valuable resources from volunteer participation.

(4) Coordinating agencies should be better able and willing to advise and, if necessary, assist the smaller, newer, less known and legitimate agencies.

(5) All coordinating and relief agencies must admit the possibility of error and misconception, and approach each disaster as a different learning situation where past experiences apply in varying degrees.

Controlled Solicitations

(1) Relief agencies should develop and maintain quality control checks on solicited or purchased supplies and personnel so as to prevent unnecessary and costly deliveries.

(2) Relief agencies should review the necessity of prospective purchased and donated supplies before final acceptance is made because of changing needs in a disaster situation.

Transportation and Logistics

(1) Smaller relief agencies should maintain close contact with some of the more experienced foreign coordinating agencies and/or disaster coordination agencies within the stricken country regarding reliable transportation routes.

(2) Foreign coordinating agencies should not interfere with effective transportation and target delivery arrangements made by the relief agencies unless they show legitimate cause and fully explain their actions to all concerned parties, including the disaster country's coordinating agency.

Periodic Review and Planning

(1) Relief agencies should establish a policy of written self-reviews of disaster response within six to eight months of the time of initial involvement.

(2) Such agencies should continue to request on-the-spot oral and written evaluations from authoritative peers and staff members during the crisis period.

(3) Disaster relief agencies should be willing to share review reports with all interested parties whether in a private or public forum, so as to provide more insight.

(4) All agencies should formulate realistic self-review criteria from which positive recommendations and changes could be made.

NOTES

1 Such a program may have psychological benefits for the refugees since it would be a relatively quick and inexpensive demonstration of the government's concern.

2 The collapsing walls and falling tiles were by all estimates the main cause of death and injuries in the disaster area.

3 San Pedro is the flower capital of Guatemala and many of its farmers grow flowers commercially.

4 Because of the backlog of donated supplies from all sources, in February 1976 Guatemala received over 4,000,000 pounds of supplies by air compared with a normal capacity of under 300,000 pounds per month.