Facilitating Communication in Emergency Situations (*Peru, Indonesia*)

Issue: Essential Emergency Communications for Disaster Relief

On the evening of 15 August 2007, a 7.9 magnitude earthquake struck the coast of Peru, bringing down buildings, cutting power supplies, and disrupting communications. More than 500 people died and 1,600 were injured, with tens of thousands more left homeless.

As with other major international disasters, relief agencies across various government, non-governmental, and intergovernmental bodies activated to deliver food, medicine, and supplies to those in need. Yet none of these groups could operate effectively without a communications system enabling them to share information among themselves, and with operational headquarters.

Response: Deploying Rapid Response Emergency Communications

Télécoms Sans Frontières (TSF), or Telecoms Without Borders, a nongovernmental organization (NGO) headquartered in France, uses mobile telecommunications to help reestablish these vital communications networks in the response to and management of humanitarian crises. Within hours of the earthquake in Peru, five staff and volunteers boarded a commercial aircraft from TSF's Latin America regional office in Managua, Nicaragua to Peru's capital city of Lima. With them, they carried everything they would need to set up emergency telecommunication operations–satellite phones, mobile phones, routers, laptops, fax machines, printers, and scanners.

Credit: TSF

Within 24 hours of their arrival, the team had established temporary telecommunications centers in three of Peru's hardest-hit areas: Pisco, Inca, and Chicha. Over the next ten days, a broad range of disaster relief agencies used TSF's service to coordinate relief efforts and help save lives. These included the Peruvian Ministries of Health and Education, the National Program for Food Assistance, the United Nations (UN), and local and international NGOs. Satellite phones were also made available so that local residents could contact family and friends. In all, more than 17 agencies and 1,400 families accessed TSF's services over the course of its deployment.

Outcome: Providing Vital Communications Services When and Where Needed Most

In 2006 and 2007 alone, TSF responded to 17 emergency situations around the globe–facilitating relief efforts in southern Lebanon during the Lebanon-Israel conflict, helping survivors of a cyclone in Bangladesh, and assisting victims of the ongoing civil war in the Democratic Republic of Congo.

How It Works

In May 2006, after a 6.3 magnitude earthquake struck southern Java in Indonesia, TSF was among the agencies to respond. Rajan Gengaje, head of the UN Disaster Assessment and Coordination team–a stand-by team of disaster management professionals working closely with the UN Office for the Coordination of Humanitarian Affairs (OCHA)–described his experience working with TSF in Java.

"TSF's technical skills, the availability of professional support staff, their speed of deployment, and excellent understanding of the international humanitarian response environment certainly add value to the UN's response initiatives," he said. "During the crisis in Yogyakarta, TSF offered vital information management support and helped train volunteers to use mobile GPS units to monitor needs on the ground."

The origins of TSF's work date back to the late 1990s when TSF co-founders Jean-Francois Cazenave and Monique Lanne-Petit were volunteering with humanitarian missions that took them to Kosovo, Afghanistan, and Iraq. Refugees would pass Cazenave slips of paper asking if he would contact their loved ones abroad.

TSF was founded in 1998 with the goal of providing disaster survivors with three-minute phone calls that enable survivors to place a call to a loved one–often to confirm family members' whereabouts or to request assistance. Today, its services have grown to include establishing communications centers for relief groups, including UN agencies.

TSF has put in place a 24-hour emergency monitoring system and coordinates closely with the UN Office for Coordination of Humanitarian Affairs (OCHA) and the UN Children's Fund (UNICEF) before deploying to a particular location. Headquartered in Pau, in southwestern France, TSF has field offices in Managua, Nicaragua and Bangkok, Thailand. The majority of the telecommunication experts TSF deploys are volunteers, who receive a modest stipend for their time in the field. Most are students or recent university graduates in their twenties or professionals over 50 with backgrounds in information and communications technology (ICT) and engineering.

TSF's work in support of UN agencies is supported by a joint grant from the United Nations Foundation and The Vodafone Group Foundation. TSF is also supported by a diverse group of public and private sector donors, including the European Commission's Humanitarian Aid Office, and telecommunications and technology companies such as Inmarsat, Eutelsat, AT&T, Cable and Wireless, and Vizada.

Challenge: Keeping Apace with Technology Developments While Staying the Course

A key challenge, according to TSF Information and Communications Coordinator Oisin Walton, is keeping up with changes in technology and determining how best to adapt new technologies to meet needs in the field. Currently, TSF maintains an inventory of

50 data transmitters, more than 100 phones, and assorted computers. A mainstay of TSF's work is the Inmarsat BGan, which offers voice, fax, and broadband Internet connections. For longer duration emergencies, TSF employs a Very Small Aperture Terminal (VSAT), a satellite dish that can facilitate data transmission from several satellite phones. TSF's mobile "visio-emergency" video system allows for satellite transmission of live videos filmed at the site of an emergency. Similarly, TSF can set up a video conferencing system capable of linking field staff with headquarters.

Looking ahead, Walton acknowledges that the sustainability of TSF's efforts is a key issue. The bulk of funds TSF receives are directed at immediate disaster service provision, and not at strengthening TSF's long-term capacity to respond to emergencies. TSF is making the case for the vital importance of disaster communications to corporations and other funding organizations that support more traditional relief measures such as the provision of food, water, shelter, and education.

Next Steps: Expanding and Developing Services to Improve Emergency Response

Following each assignment, TSF staff conduct a thorough debriefing on what went well and where future improvement is needed. Among those areas being looked at is how to expand the use of TSF services by governments and large NGOs, many of which rely on their own telecommunications capacity, and the development of new services in cooperation with TSF's existing partners.

TSF is exploring a number of ways to improve and expand its emergency services. For example, it is looking into what would be required to set up 'cyber cafes' in relief areas that would enable affected individuals to send emails to family and friends about their situation and needs. It is also exploring how to play a greater role in prevention efforts through helping communities prepare in advance of an emergency, particularly in cases where annual weather patterns predictably lead to flooding or droughts.

In Nicaragua, for example, following its emergency response to Hurricane Felix in September 2007, TSF installed an emergency communications network in the remote North Atlantic Autonomous Region of the country, where no traditional communications exist. The network will allow for improved response in the event of future emergencies.

TSF is also looking at expanding its use of mobile technology, and setting up temporary GSMA networks at base camps. "With GSM networks being reestablished faster and faster in emergencies, we are looking at ways of using more GSM technology." He adds: "When mobile networks are disrupted, we could deploy equipment capable of connecting to the network outside the affected area."

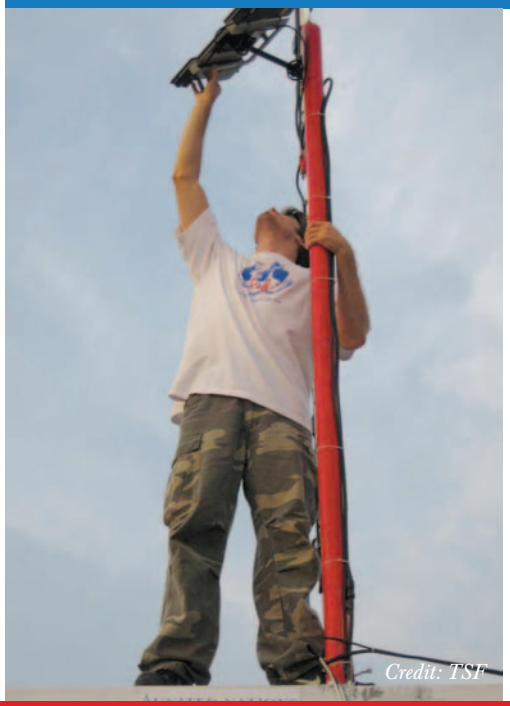
TSF's work alongside UN agencies, national governments, and other disaster relief groups demonstrates the crucial role of mobile and other communications technology in all stages of disaster relief. TSF has consistently delivered rapid response emergency communications to support humanitarian activities, and has frequently provided a first line of communication for refugees and other populations affected by disasters. Continuing its work on building the capacity of mobile communications to play a role in disaster prevention and preparedness could be a promising area for TSF's growth. Another area for exploration is the use of mobile phones for money transfer services ('m-transactions') during disasters. M-transactions have the potential to meet a widespread need during challenging circumstances. ■

Credit: TSF

Text Messaging Critical News in the Aftermath of a Disaster

More than 5,000 people died and 1.6 million were displaced as a result of the May 2006 earthquake in Yogyakarta and Central Java in Indonesia. During the days and weeks following the disaster, ordinary citizens received valuable news via text message. The text messaging service was put in place by Internews, a U.S.-based NGO that works to improve people's access to information around the world.

The service was run through an emergency AM radio station, Radio Punokawan, established by the Indonesian Press and Broadcast Society, with support from Internews. In addition to radio broadcasts, important information was sent and received from the newsroom via text messaging. Outgoing messages warned of aftershocks and identified communities that had not yet received government assistance. More than 180 Indonesian journalists distributed and received information through the service.



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