

ODUMUNC 2009 Issue Brief
Economic and Social Council (ECOSOC)
Strengthening the Coordination of
Emergency Humanitarian Action



**“Flood, Famine, and Mobile Phones;
Dealing With Disasters”**
The Economist (July 28th, 2007)

Technology is transforming humanitarian relief--and shifting the balance of power between donors and recipients.

"My name is Mohammed Sokor, writing to you from Dagahaley refugee camp in Dadaab. Dear Sir, there is an alarming issue here. People are given too few kilograms of food. You must help."

A crumpled note, delivered to a passing rock star-turned-philanthropist? No, Mr. Sokor is a much sharper communicator than that. He texted this appeal from his own mobile phone to the mobiles of two United Nations officials, in London and Nairobi. He got the numbers by surfing at an internet café at the north Kenyan camp.

As Mr. Sokor's bemused London recipient points out, two worlds were colliding. The age-old scourge of famine in the Horn of Africa had found a 21st-century response; and a familiar flow of authority, from rich donor to grateful recipient, had been reversed. It was also a sign that technology need not create a "digital divide": it can work wonders in some of the world's remotest, most wretched places.

"Technology completely alters the way humanitarian work is done," says Caroline Hurford of the World Food Programme (WFP), a United Nations body that is the single largest distributor of food aid. Once upon a time, when disaster struck, big agencies would roll up with grain, blankets and medicine and start handing them out. Victims would struggle to the relief camps, if they could. For aid workers (let alone recipients) there was no easy way to talk to head office.

Now, when an emergency occurs, the first people on the ground are often computer geeks, setting up telephone networks so other aid agencies can do their stuff. Donors keep track of supplies on spreadsheets and send each other SMS messages: this road has been attacked by bandits, that village cut off by floods. Transport agencies announce helicopter flights by e-mail. Aid providers can find out where exactly on an incoming ship their medical supplies are, saving hours hanging round the docks. Aid donors find it easier to locate the victims of disaster; and victims queue as eagerly for mobile-phone access as they do for food.

As a result, the organisation of aid is changing. On the ground, all big relief operations have communications centres where aid workers go to send e-mails, read the latest security updates and study satellite maps of the affected area. The UN's humanitarian-affairs office runs a portal called ReliefWeb, containing every map and document that might help aid donors; it got 3m hits a day after the Asian tsunami.

And aid agencies are reorganising themselves around the technology. Two UN agencies are in charge of ensuring communications work in disaster zones: UNICEF (the children's fund) does basic data transmission; the WFP does communications in insecure areas. Télécoms sans

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Frontières (TSF), a French voluntary agency (total staff: a dozen), goes in with the UN team that does the first needs-assessment in the hours after disaster strikes.

Even in the short life of TSF (which grew out of the Kosovo conflict in 1999) the technological landscape has been transformed. Satellite phones--often the only ones working right after a disaster--used to be clunky contraptions that could only transmit speech. In the past five years, transmission speeds have more than doubled, so that electronic data can flow easily. The traffic grows heavier all the time, in part because the ultimate backers of the aid agencies--be they governments or individuals--want efficiency and accountability, and think they can get both.

Disaster relief is basically a giant logistical operation. Today's emergency responders can no more dispense with mobile phones or electronically transmitted spreadsheets than a global courier company can. But unlike most couriers, aid donors operate amid chaos, with rapidly changing constraints (surges of people, outbreaks of disease, attacks by warlords). Mobile phones increase the flow of information, and the speed at which it can be processed, in a world where information used to be confused or absent. The chaos remains, but coping with it gets easier.

Better communications also favour information-sharing and co-ordination between agencies. In recent years, the problems of co-ordination have grown with the size and complexity of operations. The Asian tsunami hit 14 countries in Asia and Africa. At one point, 400 organisations were working in Aceh alone--"possibly 200 too many", remarked Jan Egeland, then the UN's emergency-relief co-ordinator. Things like e-mail service and satellite links help to herd the cats. Donors drop into telecoms centres to send e-mails, but also to swap stories and gossip. This creates a new version of the office water-cooler. Toby Porter, emergencies director of Save the Children, adds that mobile phones can facilitate relations between aid agencies and local governments; this, in turn, makes it easier for charities to gain access to remote war zones.

The benefits of technology are not quite a one-way street. Equipment is expensive. It creates co-ordination problems of its own (because of different technical standards); to address them, a score of big NGOs set up a consortium called NetHope, which spreads the cost of satellite communications and internet links. And as Hugo Slim of the Centre for Humanitarian Dialogue points out, technology increases the flow of information not just to workers in the field, but to offices in New York or London; this may tempt bosses to micro-manage from afar--which can be disastrous.

Oisin Walton of Télécoms sans Frontières has a different worry: e-mail may supplant aid workers' conflict-avoidance skills; they may come to rely too much on e-mailed security warnings, and not enough on their instincts. And the Red Cross's Florian Westphal fears satellite or mobile phones will make warlords even more suspicious of aid workers; it is now harder to eavesdrop than it was when aid workers used open radio frequencies.

On balance, of course, technology is more of a boon than a problem, though the gains are

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uneven. Small NGOs will benefit most, since big NGOs and UN bodies already have decent information systems. Some sorts of technology have developed more than others: one big growth area is surveillance, broadly defined to include software that tracks supplies.

The benefits of easier surveillance are manifold. Take two cases: since the tsunami, Sri Lanka's largest telephone company has started an early-warning system which would send SMS messages to every mobile phone in an area at risk of flooding. And Amnesty International, the human-rights agency, is paying satellite-imaging firms to take aerial shots of Darfur and of parts of Zimbabwe. Amnesty used pictures of burned villages in the Sudanese region to prove that massacres had occurred, despite government denials. Images of Zimbabwe provided evidence for a lawsuit against President Robert Mugabe.

Surveillance technology also blurs the distinction between emergency and routine operations. The UN's Food and Agriculture Organisation draws vast detailed maps showing who is vulnerable to food shortages ("poverty mapping"). This same information can be used to map the areas affected in a more acute way by drought or famine. Similarly, the software that aid agencies use to track emergency medical supplies can help public-health officials gather routine information.

Télécoms sans Frontières took the data transmitter and laptops it had used to track food aid during a famine in Niger in 2005 and adapted them to store facts about disease prevalence afterwards. Vodafone (a telecoms firm) and the UN Foundation (an American charity) run programmes in Kenya and Zambia that put information about disease and medicine on data banks for use by health ministries. In short, public-health information improves disaster response, and disaster response boosts public health. Surveillance technology is especially useful for spotting early-warning signals (by tracking the paths of locusts or hurricanes); so it helps more with "predictable" disasters than it does in cases (like earthquakes or tsunamis) where warning times are brief or non-existent.

While the joys of gadgetry may seem obvious to aid workers, how much has it really done to help victims? The full answer to that question has yet to emerge, and it is aid recipients who will give it. The Tsunami Evaluation Coalition, a group of agencies bent on learning from past mistakes, notes that "local people themselves provided almost all immediate life-saving action and the early-emergency support, as is commonly the case in disasters."

As the example of Mr. Sokor shows, people affected by catastrophe are not necessarily helpless or hapless. Their ingenuity is likely to change disaster response by rich-world donors in unexpected ways.

Already, mobile telephony is transforming the landscape. The World Bank says the number of mobile-phone subscribers in sub-Saharan Africa increased sevenfold between 2000 and 2006. India nearly doubled its mobile-phone subscriptions last year to 150m and the government expects 500m (mobile and land lines) by 2010. Natural and man-made disasters do not only strike rural areas; nearly a billion city dwellers (who use mobiles more) are vulnerable to

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disaster.

In several recent disaster zones, victims surprised their benefactors by asking not for food or medicine but money. Save the Children, at least, has responded: it has been handing out cash in addition to food in the Horn of Africa and South Asia, and it says UN agencies should do the same.

Aid agencies are also using technology to meet the victims' other key demand: contact with relatives. People in safe places who are worried about missing cousins, and victims who are in desperate need of support from the extended family, can make use of websites whose purpose is to reunite friends and relatives. A Red Cross website (familylinks.icrc.org) has details of 125,000 families.

More broadly, technology increases the role of extended families, migrants and diasporas in dealing with disaster. To take a small example, members of Zimbabwe's diaspora living in Britain can go to a website called mukuru.com, order and pay for goods such as petrol online--and have them delivered to family members back home. The operation depends not only on the internet but also on mobile phones, because when an order is made the recipient gets a code texted to his mobile, which he must show to the petrol station when he collects the goods. Other websites enable members of the diaspora to provide loved ones with a range of goods and services from food to mobile-phone credits.

As yet, such operations have made only a small dent in Zimbabwe's unfolding crisis. Mukuru, run from a flat in Clapham in south London, has about 10,000 clients. A drop in the ocean: the WFP reckons it will have to feed as many as 4m Zimbabweans by next April.

But the websites are expanding fast; mukuru plans to open in half a dozen African countries this year. And the possibilities for using mobile telecoms to help relatives are enormous. Family remittances are already a bigger source of transfers to poor countries than government aid. Mobile telephony and mobile-phone banking are spreading. As these trends converge, diasporas will move even closer to centre stage in the delivery of succour to the needy.

In any case, technology's effect on humanitarian relief is only starting to be felt. "In the humanitarian operation of the future," says Save the Children's Mr. Porter, "beneficiaries of emergency aid will use technology to tell us what they need--cash, food, or education--find out from us what to expect, and track its arrival, just as we can track an order from Amazon.com now."

And it may all happen sooner than aid agencies expect. As Mr. Sokor's case shows, victims' thinking often moves faster than their benefactors' does. Following his appeal, the WFP did boost rations in the Dagahaley refugee camp, albeit citing other reasons. That blunt text message may be a harbinger of things to come.

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