

Global CORRESPONDENT

World Update

Adam C. Levine, MD, MPH

During the final months of 2007, no corner of the planet was spared the devastating impact of natural and manmade disasters. New reports and initiatives may help the international community respond to, and mitigate the impact of, future events, saving thousands of lives and millions of dollars.

RISING WATERS: A SEASON OF WORLDWIDE FLOODING

In dozens of nations across the world, some of the worst flooding in decades occurred during the summer and autumn of 2007. With thousands killed and millions displaced, the direct impact of the floods has been severe. The indirect effects, in terms of lost harvests and increased water-borne disease, may prove far greater.

In east and west Africa, the worst flooding in 3 decades has affected more than 1.5 million people in more than 20 countries, killing at least 300 people since early summer and destroying crops and food stocks across the continent. Uganda declared a state of emergency in September after rising waters left 400,000 people homeless and hungry in the north-eastern part of the country. According to the World Food Program, Uganda will face severe food shortages in 2008 as a result of the flooding, and several aid agencies have already reported increased rates of diarrheal disease and malaria in the region.¹

In Mexico, the Gulf Coast state of Tabasco was inundated with heavy rains in late October, causing several major rivers to flood their banks. The waters completely submerged the capital city of Villahermosa and blanketed more than 70% of the state. According to the Mexican Red Cross, more than 1 million residents were affected, with tens of thousands living in temporary shelters across the region.² Mexican President Felipe Calderón has pledged \$670 million in reconstruction assistance, although Tabasco governor Andrés Grenier estimates \$5 billion in damage to the region. Farther south in Nicaragua, Hurricane Felix left 332 Miskito Indians dead or missing in September; in Haiti and the Dominican Republic, Hurricane Noel killed 150 people.

Floods in central Vietnam have killed at least 200 people since early October 2007, causing \$300 million

in crop damage and delaying the coffee harvest. Isolated North Korea experienced some of the worst flooding in its history in August, with 600 people killed and 10% of the country's viable farmland destroyed. As a result of the flooding, the Korea Rural Economic Institute predicted a shortfall of 1.4 million tons of grain in 2008, which could lead to mass starvation similar to that experienced by North Korea during the 1990s.³

In November, Bangladesh experienced its worst humanitarian emergency since 1991, when flooding killed 143,000 people. The casualties were far fewer this time, thanks to a national early warning system and local evacuation plans that helped millions of people along Bangladesh's southern coast flee to safety. Still, Cyclone Sidr has claimed more than 3500 lives and affected 5 million people according to the UN Office for Coordination of Humanitarian Affairs.⁴ Hundreds of millions of dollars have poured into the country for emergency food aid and shelter, although humanitarian agencies continue to report difficulties in reaching certain hard-hit areas.

The UN Intergovernmental Panel on Climate Control, co-recipient of the 2007 Nobel Peace Prize, released its latest report on November 17, 2007, which predicts with high certainty that global warming will lead to future increases in deaths, disease, and injuries due to storms, floods, and droughts.⁵ In addition to mitigating the effects of global climate change through reductions in greenhouse gas emissions, the report recommends a variety of ways to help countries adapt to the inevitable increase in extreme weather events, including better forecasting methods to give the public early warning, new land-use policies and building codes, physical barriers to protect against flooding, weather-related insurance, and a more proactive international relief and response system.

HUMANITARIAN COORDINATION: WORKING TOGETHER AT LAST

In September 2007, Harvard University hosted the second annual Humanitarian Health Conference (HHC), focusing on 4 areas of growing importance to humanitarian relief operations: health sector collaboration, human resources development, health information and data management, and civilian protec-

tion. The conference organized working groups consisting of panels of experts in each of these 4 key areas, which reviewed the available evidence and developed action plans for improving capacity.

According to Dr Michael VanRooyen, chair of the conference, the impetus came from several international nongovernmental organizations (NGOs) that were searching for ways to encourage dialogue on complicated issues facing organizations involved with humanitarian efforts. This year, the HHC brought together dozens of representatives from NGOs, UN agencies, donor governments, and academia.

Health sector collaboration proved to be one of the most difficult problems addressed by HHC attendees. Participants with direct field experience in humanitarian disasters and emergencies listed several major barriers to humanitarian coordination in the field, including the need for organizational identity and independence, financial competition for donor funding, and staff turnover. The working group also discussed several new efforts to improve humanitarian coordination, such as the UN Inter-Agency Standing Committee Cluster System, whereby NGOs and UN agencies in a particular emergency work together in so-called clusters based on their particular sectors of expertise. The working group called for a steering committee to investigate models of collaborative organizational behavior from other fields, such as the corporate sector, and to research their applications in the humanitarian health field.

Working groups also made specific recommendations in each of the other focus areas. To overcome barriers to recruitment and retention of staff, one working group plans to develop an online resource for potential relief workers and create a report for donors highlighting the importance of investment in human resources development. Another working group offered a list of techniques that NGOs can use to improve the collection and utilization of data during humanitarian emergencies, including using simplified health indicators with a consistent reporting format, taking advantage of familiar technologies for data collection (such as cell phones), involving field staff in development of data systems, and promoting ongoing skills training.

Although much work remains, the HHC has already produced several positive results, according to VanRooyen: "First and foremost, it has resulted in a gathering of diverse organizations that do not routinely talk together. This is a big step in enhancing the dialogue and common understanding of the collective challenges we all face."

CRISIS IN ZIMBABWE: THE POLITICS OF HUNGER

Once known as the "breadbasket of southern Africa," Zimbabwe now faces widespread famine and one of the most serious humanitarian crises in the world. An El Niño weather pattern has resulted in lower than average rainfall this year and severe drought in many parts of the country. The UN Food and Agricultural Organization estimates that 4.1 mil-

lion people, or one third of the population, will face severe food shortages in early 2008.⁶

Although Mother Nature shares some of the responsibility, Western governments and human rights organizations also blame the policies pursued by Zimbabwe President Robert Mugabe. Beginning in 2000, the government began an aggressive land redistribution campaign, seizing thousands of commercial farms belonging to white landowners and dividing them up among about 200,000 landless blacks. The intention of the land redistribution campaign had been to rectify inequities caused by Zimbabwe's colonial past, however, most agree that the land reforms were poorly managed and underfunded. White farmers were not provided with compensation for their land, nor were the new black owners provided with the skills training or resources to effectively farm the land. Since the redistribution, Zimbabwe's commercial agriculture has shrunk by 40%, leading to a sharp drop in exports and a fall in gross domestic product by about one third.⁶

In a country so dependent on agricultural exports, Zimbabwe's current farming woes have had a significant impact on the economy. The UN estimates an unemployment rate >70%, with 80% of the country living in poverty.⁶ The government reported in November 2007 that inflation had soared to nearly 15,000%, the highest level in the world.⁷ Price controls instituted by President Mugabe in early summer 2007 have resulted in shortages of even the most basic necessities, with people forced to queue for days to purchase a simple loaf of bread. Inflation has also led to severe fuel shortages, exacerbating the food crisis by making it difficult for the Grain Marketing Board (which runs the government's food aid program) to transport food to the neediest parts of the country. In November, the state-run *Herald* newspaper reported that physician consultation and laboratory fees had risen 10-fold since the summer, making these services unaffordable for all but the wealthiest people.

Famine, poverty, and lack of access to basic healthcare and necessities, coupled with the continued HIV/AIDS epidemic, have taken a significant toll on the health of the population. Though it has made significant strides over the past 2 decades in fighting HIV/AIDS, more than 20% of the adult population in Zimbabwe is infected with the virus, one of the highest prevalence rates in Africa. According to the World Health Organization, Zimbabwe's average life expectancy has fallen to 36 years, the lowest in the entire world.⁶

According to a recent report released by the International Crisis Group, an initiative by the Southern Africa Development Community to negotiate a political compromise between the ruling ZANU-PF party and the opposition MDC party remains the only realistic means of escaping the crisis.⁸ Led by South African President Thabo Mbeki, the Southern Africa Development Community initiative will attempt to negotiate constitutional reforms that would allow a free and fair election in Zimbabwe next year in exchange for increased humanitarian aid.

REFERENCES

- World Food Program. WFP seeks funds for flood operations across Africa. Reuters AlertNet, September 26, 2007. <http://www.alertnet.org/thenews/newsdesk/WFP/9c302bf3cc10b15fdbfe7f0d3f340800.htm>. Accessed December 6, 2007.
- Fajardo A. Mexican floods recede as thousands more evacuated. Reuters AlertNet, November 4, 2007. <http://www.alertnet.org/thenews/newsdesk/N04191207.htm>. Accessed December 6, 2007.
- North Korea on brink of famine after floods-study. Reuters AlertNet, October 18, 2007. <http://www.alertnet.org/thenews/newsdesk/L18370792.htm>. Accessed December 6, 2007.
- Ahmed N. Bangladesh says reaches all cyclone-hit areas. Reuters AlertNet, November 20, 2007. <http://www.alertnet.org/thenews/newsdesk/SP91566.htm>. Accessed December 6, 2007.
- Intergovernmental Panel on Climate Change (IPCC). *Climate Change 2007: Synthesis Report from IPCC Fourth Assessment Report*. <http://www.ipcc.ch/ipccreports/ar4-syr.htm>. Accessed December 6, 2007.
- Zimbabwe crisis. Reuters AlertNet, January 17, 2008. http://www.alertnet.org/db/crisisprofiles/ZW_CRI.htm?v=in_detail. Accessed January 18, 2008.
- Zimbabwe inflation “incalculable.” BBC News, November 27, 2007. <http://news.bbc.co.uk/2/hi/africa/7115651.stm>. Accessed December 6, 2007.
- International Crisis Group. *Zimbabwe: A Regional Solution?* Africa Report no. 132. <http://www.crisisgroup.org/home/index.cfm?id=5083>. Accessed December 6, 2007.

About the Author

Dr Levine is with the Department of Emergency Medicine, Brigham and Women's Hospital.

Address correspondence and reprint requests to Dr Adam C. Levine, Brigham and Women's Hospital, 75 Francis St, Boston, MA 02130 (e-mail: adamlevinemd@gmail.com).

Received for publication December 7, 2007; accepted December 10, 2007.

Author's Disclosure

The author reports no conflicts of interest.

ISSN: 1935-7893 © 2008 by the American Medical Association and Lippincott Williams & Wilkins.

DOI: 10.1097/DMP.0b013e318164d03b